GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:07:01 ; Search time 39.4564 Seconds
(without alignments)
1198.803 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 1521
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_19Jun03:*
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2: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
3: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:*
4: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1518	99.8	298	19	AAW85457	Secreted protein e
2	1518	99.8	298	22	AAU00512	Human junctional a
3	1518	99.8	298	23	ABP61801	Human polypeptide
4	1517	99.7	298	19	AAW75220	Human secreted pro
5	1517	99.7	298	23	AAE26983	Human gene 25 enco
6	1517	99.7	298	23	AAE27121	Human gene 25 enco
7	1517	99.7	298	24	ABR47926	Human secreted pro
8	1517	99.7	298	24	ABU64994	Human secreted pro
9	1517	99.7	298	24	ABR00172	Human gene 162 enc
10	1514	99.5	298	24	AAO16452	Human junctional a
11	1502.5	98.8	303	22	AAM23693	Human EST encoded
12	1465	96.3	312	20	AAY08060	Human PRO245 prote
13	1465	96.3	312	20	AAY23324	A33 related antige
14	1465	96.3	312	20	AAY13354	Amino acid sequenc
15	1465	96.3	312	21	AAB33421	Human PRO245 prote
16	1465	96.3	312	21	AAB24401	Human PRO245 prote
17	1465	96.3	312	21	AAY70668	Human PRO245 prote
18	1465	96.3	312	22	AAU12339	Human PRO245 polyp
19	1465	96.3	312	22	AAU00821	Human immune respo
20	1465	96.3	312	22	AAB80222	Human PRO245 prote
21	1465	96.3	312	22	AAB53081	Human angiogenesis
22	1465	96.3	312	24	ABU69632	Novel human secret
23	1465	96.3	312	24	ABU71455	Human PRO polypept
24	1465	96.3	312	24	ABU71901	Human secreted/tra
25	1465	96.3	312	24	ABU07738	Human A-33 related
26	1465	96.3	312	24	ABU66737	Human PRO polypept
27	1465	96.3	312	24	ABU67013	Human secreted/tra
28	1465	96.3	312	24	ABU67355	Human secreted pro
29	1465	96.3	312	24	ABU59818	Novel secreted and
30	1465	96.3	312	24	ABU64509	Human secreted/tra
31	1465	96.3	312	24	ABU54357	Human secreted/tra
32	1459	95.9	312	22	AAB50904	Human PRO245 prote
33	1242.5	81.7	388	22	ABG22341	Novel human diagno
34	1184	77.8	298	21	AAB27273	Human confluency r
35	1184	77.8	298	21	AAB27275	Murine confluency
36	1143	75.1	222	22	AAM41947	Human polypeptide
37	1106	72.7	215	22	AAB70500	Angiogenesis prote
38	1092	71.8	213	21	AAB27277	Human confluency r
39	702.5	46.2	140	22	ABG22338	Novel human diagno
40	547	36.0	107	22	AAM40161	Human polypeptide
41	498	32.7	310	21	AAB27272	Human confluency r
42	498	32.7	310	21	AAB27278	Murine confluency
43	482	31.7	310	24	AAO16453	Human junctional a
44	481	31.6	310	21	AAB27276	Human confluency r
45	481	31.6	310	21	AAB33457	Human PRO1868 prot

ALIGNMENTS

RESULT 1
AAW85457
ID AAW85457 standard; Protein; 298 AA.
XX
AC AAW85457;
XX
DT 25-FEB-1999 (first entry)
XX
DE Secreted protein encoded by clone ct864_4.
XX
KW Secreted protein; nutritional activity; immune stimulating; vaccine;
KW suppressing activity; haematopoiesis regulating activity;
KW tissue growth activity; activin; inhibin activity; chemotactaxis;
KW chemokinetic activity; haemostasis; thrombolytic activity; receptor;
KW ligand; anti-inflammatory; cadherin; tumour invasion suppressor;
KW tumour inhibition; gene therapy.
XX
OS Homo sapiens.
XX
PN WO9842739-A2.
XX
PD 01-OCT-1998.
XX
PF 20-MAR-1998; 98WO-US05653.
XX
PR 19-MAR-1998; 98US-0044466.
PR 21-MAR-1997; 97US-0822167.
XX
PA (GEMY) GENETICS INST INC.
XX
PI Agostino MJ, Jacobs K, Lavallie ER, McCoy JM, Merberg D;
PI Racie LA, Spaulding V, Treacy M;

```
XX
DR   WPI; 1998-609890/51.
DR   N-PSDB; AAV82780.
XX
PT   New polynucleotides encoding secreted human proteins - derived from
PT   human foetal brain, adult brain, foetal kidney, placenta or adult
PT   pineal gland cDNA libraries.
XX
PS   Claim 17; Page 73-74; 113pp; English.
XX
CC   The present sequence represents a secreted protein. The polynucleotide
CC   and secreted protein are predicted to have biological activities which
CC   would make them suitable for treating, preventing or ameliorating medical
CC   conditions in humans and animals, although no supporting data is given.
CC   Suggested activities include nutritional activity, immune stimulating
CC   (e.g. as vaccines) or suppressing activity, haematopoiesis regulating
CC   activity, tissue growth activity, activin/inhibin activity,
CC   chemotactic/chemokinetic activity, haemostatic and thrombolytic activity,
CC   receptor/ligand activity, anti-inflammatory activity, cadherin/tumour
CC   invasion suppressor activity, and tumour inhibition activity (no data is
CC   given in the specification to support these activities). The
CC   polynucleotide is also stated to be useful for gene therapy.
XX
SQ   Sequence   298 AA;

  Query Match             99.8%;  Score 1518;  DB 19;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 1.1e-118;
  Matches  296;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 2
AAU00512
ID   AAU00512 standard; Protein; 298 AA.
XX
AC   AAU00512;
XX
DT   09-MAY-2001  (first entry)
XX
DE   Human junctional adhesion protein (JAM2).
XX
KW   Junctional adhesion protein; JAM2; cellular localisation;
KW   cellular expression; immunoprecipitation; stroke; phosphorylation;
KW   glycosylation; paracellular migration; inflammatory disease;
KW   arthritis; asthma; rheumatoid arthritis; inflammatory bowel disease;
KW   Crohn's disease.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..20
FT                   /note= "Possible signal peptide #1"
FT   Peptide         1..28
FT                   /note= "Possible signal peptide #2"
FT   Protein         21..298
FT                   /note= "Possible mature JAM2 #1"
FT   Protein         29..298
FT                   /note= "Possible mature JAM2 #2"
FT   Domain          237..254
FT                   /note= "Transmembrane domain"
XX
PN   WO200114404-A1.
XX
PD   01-MAR-2001.
XX
PF   23-AUG-2000; 2000WO-US23158.
XX
PR   24-AUG-1999;   99US-0150459.
XX
PA   (TEXA-) TEXAS BIOTECHNOLOGY CORP.
XX
PI   Cunningham S,  Trindad Arrate Barros M;
XX
DR   WPI; 2001-218425/22.
DR   N-PSDB; AAS00512.
XX
PT   Novel nucleic acids encoding human junctional adhesion protein useful
PT   for producing antibodies that are suitable for therapeutic purposes  -
XX
PS   Claim 4; Page 46-47; 51pp; English.
XX
CC   The sequence represents a human junctional adhesion molecule 2 (JAM2).
CC   The polynucleotide encoding the polypeptide is useful for recombinant
CC   production of JAM-2 protein, which in turn is useful for the production
CC   of antibodies. The antibodies may be used for probing cellular
CC   localisation and/or expression of JAM2 in tissues under normal and
CC   disease states, for immunoprecipitating JAM2 protein from cells and/or
CC   stroke tissues to determine whether it is modified by glycosylation and
CC   phosphorylation, and for determining JAM2 function. The antibodies
CC   inhibit interaction of JAM2 with inflammatory cells or influences their
CC   paracellular migration, and is therefore useful for alleviating
CC   inflammatory diseases such as arthritis, asthma, rheumatoid arthritis,
CC   inflammatory bowel disease and Crohn's disease.
XX
SQ   Sequence   298 AA;

  Query Match             99.8%;  Score 1518;  DB 22;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 1.1e-118;
  Matches  296;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||||||||||||||||||||||||||||||||||| ||||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 3
ABP61801
ID   ABP61801 standard; Protein; 298 AA.
XX
AC   ABP61801;
XX
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DT 04-OCT-2002 (first entry)
XX
DE Human polypeptide SEQ ID NO 155.
XX
KW Human; cytostatic; antirheumatic; antiarthritic; vulnerary; analgesic;
KW antiinflammatory; antibacterial; immunosuppressive; antiparkinsonian;
KW neuroprotective; nootropic; osteopathic; haemostatic; vasotropic;
KW antiulcer; fungicide; antidiabetic; antiasthmatic; antiallergic;
KW immunostimulant; antiparasitic; secreted protein; transmembrane protein;
KW cytokine; cell proliferation; cell differentiation; autoimmune disease;
KW stem cell; growth factor; nervous system disease; neuropathy;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease;
KW osteoporosis; severe combined immunodeficiency; SCID; infection;
KW multiple sclerosis; rheumatoid arthritis; gene therapy.
XX
OS Homo sapiens.
XX
PN US2002065394-A1.
XX
PD 30-MAY-2002.
XX
PF 22-DEC-2000; 2000US-0745763.
XX
PR 18-MAR-1998; 98US-0040963.
XX
PA (JACO/) JACOBS K.
PA (MCCO/) MCCOY J M.
PA (LAVA/) LAVALLIE E R.
PA (COLL/) COLLINS-RACIE L A.
PA (EVAN/) EVANS C.
PA (MERB/) MERBERG D.
PA (TREA/) TREACY M.
PA (SPAU/) SPAULDING V.
XX
PI Jacobs K, McCoy JM, LaVallie ER, Collins-Racie LA, Evans C;
PI Merberg D, Treacy M, Spaulding V;
XX
DR WPI; 2002-582343/62.
DR N-PSDB; ABQ92017.
XX
PT Novel secreted or transmembrane protein and polynucleotide encoding the
PT protein, useful for diagnosis and treatment of neurological disorders,
PT cancer, autoimmune diseases, bone disorders and lung or liver fibrosis
PT -
XX
PS Claim 54; Page 116-117; 284pp; English.
XX
CC The invention relates to human secreted or transmembrane protein (I),
CC their fragments and is encoded by specific complementary deoxyribonucleic
CC acid (cDNA) inserts (II), where the protein is substantially free from
CC other mammalian proteins. (I) are useful for preventing, treating or
CC ameliorating a medical condition, especially immunological treatment or
CC prevention of tumours. (I) exhibits activity relating to angiogenesis,
CC cytokine, cell proliferation, cell differentiation, antiinflammatory,
CC stem cell growth factor activity and activin or inhibin-related
CC activities. (I) can be used to manipulate stem cells in culture to give
CC rise to neuroepithelial cells that can be used to augment or replace
CC cells damaged by illness, autoimmune disease, accidental damage or
CC genetic disorders. (I) induces the proliferation of neural cells and
CC regeneration of nerve and brain tissue and is useful for the treatment of
CC central and peripheral nervous system diseases and neuropathies, such as
CC Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC lateral sclerosis. (I) is involved in chemotactic or chemokinetic
CC activity, regulation of haematopoiesis and is useful for treating myeloid
CC or lymphoid cell disorders, platelet disorders such as thrombocytopaenia
CC and for regeneration of bone, cartilage, tendon, ligament and/or nerve
CC tissue growth and in tissue repair, healing of burns, incisions, ulcers,
CC for treating osteoporosis, osteoarthritis, bone degenerative disorders or
CC periodontal disease. (I) is also useful for gut protection or
CC regeneration and treatment of lung or liver fibrosis, reperfusion injury
CC in various tissues, various immune deficiencies and disorders including
CC severe combined immunodeficiency (SCID), bacterial or fungal infections,
CC autoimmune disorders e.g. multiple sclerosis, rheumatoid arthritis,
CC diabetes mellitus, myasthenia gravis, allergic reactions and conditions,
CC such as asthma or other respiratory problems. (II) is useful to express
CC recombinant protein, as markers for tissues in which the corresponding
CC protein is preferentially expressed and in gene therapy. The present
CC sequence is that of a polypeptide of the invention.
XX
SQ Sequence 298 AA;

Query Match 99.8%; Score 1518; DB 23; Length 298;
Best Local Similarity 99.3%; Pred. No. 1.1e-118;
Matches 296; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
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Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 4
AAW75220
ID AAW75220 standard; Protein; 298 AA.
XX
AC AAW75220;
XX
DT 29-JAN-1999 (first entry)
XX
DE Human secreted protein encoded by gene 25 clone HTEEB42.
XX
KW Human; secreted protein; fusion protein; gene therapy; protein therapy;
KW diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia;
KW developmental abnormality; foetal deficiency; blood; allergy; renal;
KW immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;
KW inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS;
KW cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;
KW osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;
KW endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 42
FT /label= unknown
FT Misc-difference 58
FT /label= unknown
XX
PN WO9840483-A2.
XX
PD 17-SEP-1998.
XX
PF 12-MAR-1998; 98WO-US04858.
XX
PR 19-DEC-1997; 97US-0068368.
PR 14-MAR-1997; 97US-0040710.
PR 14-MAR-1997; 97US-0040762.
PR 30-MAY-1997; 97US-0048100.
PR 30-MAY-1997; 97US-0048189.
PR 30-MAY-1997; 97US-0048357.
PR 30-MAY-1997; 97US-0050934.

Applicant

```
PR   06-JUN-1997;   97US-0048970.
PR   05-SEP-1997;   97US-0057765.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Ferrie AM,  Fischer CL,  Gentz RL,  Greene JM,  Kyaw H;
PI   Li H,  Li Y,  Moore PA, Rosen CA,  Ruben SM,  Soppet DR;
PI   Wei YF,  Young PE,  Zeng Z;
XX
DR   WPI; 1998-520811/44.
DR   N-PSDB; AAV34310.
XX
PT   Isolated human poly:nucleotide(s) encoding secretory peptide(s) -
PT   used to develop products for the diagnosis and treatment of e.g.
PT   inflammation, cancers, CNS disorders or immune system disorders
XX
PS   Claim 1; Page 168-169; 201pp; English.
XX
CC   This sequence represents a secreted human protein encoded by the gene
CC   clone detailed in the descriptor line.  The gene can be used to generate
CC   fusion proteins by linking to the gene to a human immunoglobulin Fc
CC   portion (e.g. AAV34277) for increasing the stability of the fused
CC   protein as compared to the human protein only.
CC   The invention relates to 28 novel genes and their fragments (nucleic
CC   acid sequences: AAV34286-V34325; amino acid sequences AAW75196-W75235)
CC   which are useful for preventing, treating or ameliorating  medical
CC   conditions e.g. by protein or gene therapy.  Also, pathological
CC   conditions can be diagnosed by determining the amount of the new
CC   polypeptides in a sample or by determining the presence of mutations in
CC   the new polynucleotides. Specific uses are described for each of the 28
CC   polynucleotides, based on which tissues they are most highly expressed in
CC   (see AAV34286 for described uses).
XX
SQ   Sequence   298 AA;

  Query Match             99.7%;  Score 1517;  DB 19;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-118;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
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Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 5
AAE26983
ID   AAE26983 standard; Protein; 298 AA.
XX
AC   AAE26983;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; immunodeficiency; X-linked agammaglobulinaemia; septic shock;
KW   autoimmune disorder; rheumatoid arthritis; multiple sclerosis; cancer;
KW   Grave's disease; diabetes mellitus; haematopoietic disorder; stroke;
KW   respiratory disorder; asthma; allergy; gastrointestinal disorder;
KW   inflammatory bowel disease; neurodegenerative disorder; hepatitis;
KW   Parkinson's disease; Alzheimer's disease; cardiovascular disorder;
KW   atherosclerosis; myocarditis; renal disorder; fungicide; virucide;
KW   hyperproliferative disorder; acute glomerulonephritis; tonsilitis;
KW   respiratory disorder; rhinitis; sinusitis; neurological disease;
KW   endocrine disorder; Addison's disease; reproductive system disorder;
KW   endometriosis; vasotropic; vulnerary; cytostatic; nootropic; cardiant;
KW   anti-HIV; tranquilliser; gout; antiparasitic.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Human mature secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002077287-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0852659.
XX
PR   11-SEP-1998;   98US-0152060.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-598780/64.
DR   N-PSDB; AAD44660.
XX
PT   Novel human secreted polypeptides and polynucleotides for diagnosing,
PT   preventing, treating immune, hyperproliferative, cardiovascular,
PT   neurological, reproductive disorders and identifying modulators of
PT   therapeutic use  -
XX
PS   Claim 11; Page 186; 209pp; English.
XX
CC   AAD44636-AAD44676 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE26959-AAE26999 represent the proteins they encode.
CC   AAE27000-AAE27025 represent human secreted protein fragments or their
CC   variants. The secreted proteins and genes are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Specific uses are described for each of the 28 genes, based
CC   on the tissues in which they are most highly expressed and include
CC   developing products for the diagnosis or treatment of immunodeficiencies,
CC   e.g., X-linked agammaglobulinaemia, B cell immunodeficiencies, severe
CC   combined immunodeficiencies, autoimmune disorders e.g., systemic lupus
CC   erythematosus, rheumatoid arthritis, multiple sclerosis, autoimmune
CC   thyroiditis, autoimmune haemolytic anaemia, Goodpasture's syndrome,
CC   Grave's disease, diabetes mellitus, dermatitis, inflammatory conditions
CC   including septic shock, sepsis, reperfusion injury, inflammatory bowel
CC   disease, Crohn's disease, haematopoietic disorders, respiratory
CC   disorders e.g., asthma and allergy, gastrointestinal disorders e.g.,
```

```
CC   inflammatory bowel disease), cancers e.g., gastric, ovarian, lung,
CC   liver, bladder and breast), central nervous system (CNS) disorders e.g.,
CC   ischaemic brain injury and/or stroke, neurodegenerative disorders e.g.,
CC   Parkinson's disease and Alzheimer's disease, AIDS-related dementia and
CC   prion disease, cardiovascular disorders e.g., myocarditis, arrhythmias,
CC   atherosclerosis, inflammatory disorders e.g., hepatitis, gout, trauma,
CC   pancreatitis, sarcoidosis and allogenic transplant rejection, blood-
CC   related disorder (thrombosis, arterial thrombosis, atherosclerosis),
CC   hyperproliferative disorders, respiratory disorders e.g. rhinitis,
CC   sinusitis, tonsilitis, lung cancer, allergic disorders, pneumonitis,
CC   renal disorders. e.g. acute glomerulonephritis, neurological diseases,
CC   liver disorders, endocrine disorders e.g., hyperthyroidism, Addison's
CC   disease, hyperpituitarism, infectious diseases and reproductive system
CC   disorders e.g. endometriosis. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.7%;  Score 1517;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-118;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 6
AAE27121
ID   AAE27121 standard; Protein; 298 AA.
XX
AC   AAE27121;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; secreted protein; autoimmune disease; hyperproliferative disorder;
KW   rheumatoid arthritis; neoplasm; cerebrovascular disorder; angiogenesis;
KW   cerebral ischaemia; cardiovascular disorder; nervous system disorder;
KW   cardiac arrest; Alzheimer's disease; ocular disorder; wound healing;
KW   infection; corneal infection; skin aging; food additive; preservative;
KW   tissue regeneration; immunosuppressive; antiproliferative; cytostatic;
KW   cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective;
KW   antibacterial; virucide; fungicide; ophthalmological; gene therapy;
KW   vulnerary.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Mature human secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002076756-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0853161.
XX
PR   02-FEB-2001; 2001US-265583P.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
PA   (MOOR/) MOORE P A.
PA   (YOUN/) YOUNG P E.
PA   (GREE/) GREENE J M.
PA   (FERR/) FERRIE A M.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-574454/61.
DR   N-PSDB; AAD44878.
XX
PT   New nucleic acid molecules encoding 28 human secreted proteins, useful
PT   for diagnosing, preventing, treating or ameliorating medical conditions
PT   and as food additives or preservatives  -
XX
PS   Claim 11; Page 186-187; 209pp; English.
XX
CC   AAD44854-AAD44984 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE27097-AAE27137 represent the proteins they encode.
CC   AAE27138-AAE27164 represent human secreted protein fragments. The genes
CC   and their corresponding secreted proteins are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Secreted protein sequences of the invention are useful for the
CC   diagnosis or treatment of disorders such as autoimmune diseases (e.g.
CC   rheumatoid arthritis), hyperproliferative disorders (e.g. neoplasms of
CC   the breast or liver), cerebrovascular disorders (e.g. cerebral ischaemia,
CC   angiogenesis), cardiovascular disorders (e.g. cardiac arrest), nervous
CC   system disorders (e.g. Alzheimer's disease), infections caused by fungi,
CC   bacteria and viruses and ocular disorders (e.g. corneal infection). The
CC   polypeptides can also be used to aid wound healing and epithelial cell
CC   proliferation, to prevent skin aging due to sunburn, to maintain organs
CC   before transplantation, for supporting cell culture of primary tissues,
CC   to regenerate tissues and in chemotaxis. They can also be used as food
CC   additives or preservative to increase or decrease storage capabilities,
CC   fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors
CC   and other nutritional components. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.7%;  Score 1517;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-118;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

```
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 7
ABR47926
ID ABR47926 standard; Protein; 298 AA.
XX
AC ABR47926;
XX
DT 12-JUN-2003 (first entry)
XX
DE Human secreted protein, SEQ ID 817.
XX
KW Cardiant; antiarrhythmic; antiarteriosclerotic; vasotropic; cytostatic;
KW vulnerary; antiinflammatory; nootropic; neuroprotective;
KW antiparkinsonian; gene therapy; human; cardiovascular disorder.
XX
OS Homo sapiens.
XX
PN WO200295010-A2.
XX
PD 28-NOV-2002.
XX
PF 19-MAR-2002; 2002WO-US09785.
XX
PR 21-MAR-2001; 2001US-277340P.
PR 19-JUL-2001; 2001US-306171P.
PR 13-NOV-2001; 2001US-331287P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-129429/12.
XX
PT Novel human secreted proteins, useful for detecting, preventing,
PT diagnosing, prognosticating, treating and/or ameliorating
PT cardiovascular disorders such as arrhythmia -
XX
PS Claim 13; SEQ ID 817; 1881pp; English.
XX
CC The present invention relates to novel human secreted proteins
CC (ABR47633-ABR48145) and their coding sequences (ACC50344-ACC50856). The
CC proteins and their coding sequences are useful for the preparation of a
CC diagnostic or pharmaceutical composition for diagnosing or treating a
CC cardiovascular disorder (e.g., arrhythmia, tachycardia, cardiac arrest,
CC coronary arteriosclerosis and myocardial ischaemia), neural disorders,
CC immune system disorders, muscular disorders, reproductive disorders,
CC gastrointestinal disorders, pulmonary disorders, renal disorders,
CC proliferative disorders and/or cancerous diseases and conditions, for
CC wound healing and epithelial cell proliferation, to treat inflammation or
CC infection, for treating thrombosis and arteriosclerosis, for treating or
CC preventing neural damage which occurs in neuronal disorders or
CC neurodegenerative conditions such as Alzheimer's disease and Parkinson's
CC disease, to enhance bone and periodontal regeneration and aid in tissue
CC transplants or bone grafts, to prevent skin aging or hair loss, to
CC stimulate growth and differentiation of haematopoietic cells and bone
CC marrow cells when used in combination with other cytokines, to maintain
CC organs before transplantation or for supporting cell culture of primary
CC tissues, to increase or decrease differentiation or proliferation of
CC embryonic stem cells, or to modulate mammalian characteristics or
CC metabolism.
CC Note: The sequence data for this patent was published in electronic
CC format and is available from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 298 AA;

```
  Query Match             99.7%;  Score 1517;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-118;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 8
ABU64994
ID ABU64994 standard; Protein; 298 AA.
XX
AC ABU64994;
XX
DT 15-MAY-2003 (first entry)
XX
DE Human secreted protein gene 25, protein.
XX
KW Secreted protein; immunodeficiency; multiple sclerosis;
KW severe combined immunodeficiency; autoimmune disorder; cancer;
KW rheumatoid arthritis; diabetes mellitus; haematopoietic disorder;
KW inflammatory condition; septic shock; inflammatory bowel disease;
KW Crohn's disease; respiratory disorder; asthma; allergy; stroke;
KW gastrointestinal disorder; central nervous system disorder;
KW ischaemic brain injury; neurodegenerative disorder; Parkinson's disease;
KW Alzheimer's disease; cardiovascular disorder; atherosclerosis;
KW blood-related disorder; thrombosis; atherosclerosis; renal disorder;
KW hyperproliferative disorder; acute glomerulonephritis; Addison's disease;
KW endocrine disorder; liver disease; reproductive system disorder;
KW endometriosis; infectious disease; pancreatic disorder; vaccine;
KW wound repair; angiogenesis; lymphatic disorder; hair loss; body weight;
KW body height; hair colour; human.
XX
OS Homo sapiens.
XX
PN US2002172994-A1.
XX
PD 21-NOV-2002.
XX
PF 11-MAY-2001; 2001US-0852797.
XX
PR 14-MAR-1997; 97US-040710P.
PR 14-MAR-1997; 97US-040762P.
PR 30-MAY-1997; 97US-048100P.
PR 30-MAY-1997; 97US-048189P.
PR 30-MAY-1997; 97US-048357P.
PR 30-MAY-1997; 97US-050934P.
PR 06-JUN-1997; 97US-048970P.
PR 05-SEP-1997; 97US-057765P.

PR 19-DEC-1997; 97US-068368P.
PR 02-FEB-2001; 2001US-265583P.
PR 12-MAR-1998; 98WO-US04858.
PR 11-SEP-1998; 98US-0152060.
XX
PA (RUBE/) RUBEN S M.
PA (ROSE/) ROSEN C A.
PA (LIYY/) LI Y.
PA (ZENG/) ZENG Z.
PA (KYAW/) KYAW H.
PA (FISC/) FISCHER C L.
PA (LIHH/) LI H.
PA (SOPP/) SOPPET D R.
PA (GENT/) GENTZ R L.
PA (WEIY/) WEI Y.
PA (MOOR/) MOORE P A.
PA (YOUN/) YOUNG P E.
PA (GREE/) GREENE J M.
PA (FERR/) FERRIE A M.
XX
PI Ruben SM, Rosen CA, Li Y, Zeng Z, Kyaw H, Fischer CL, Li H;
PI Soppet DR, Gentz RL, Wei Y, Moore PA, Young PE, Greene JM;
PI Ferrie AM;
XX
DR WPI; 2003-310989/30.
DR N-PSDB; ABX96990.
XX
PT New human secreted polypeptides and polynucleotides for diagnosing,
PT prognosing, preventing and treating immune, hyperproliferative, liver,
PT kidney, reproductive disorders and for identifying modulators of
PT therapeutic use -
XX
PS Claim 11; Page 186; 209pp; English.
XX
CC The invention relates to an isolated polypeptide comprising an amino acid
CC sequence at least 95% identical to sequence of 28 human secreted
CC proteins, their fragment, polypeptide domain, epitope, secreted form,
CC variant, allelic variant, or species homologue, or the encoded sequence
CC included in ATCC 97921 and 97922. Also included are the encoding
CC nucleic acids, recombinant vectors, host cells, antibodies, and genes.
CC The proteins and nucleic acids are useful for diagnosing, preventing,
CC treating, prognosing or ameliorating a medical condition e.g.
CC immunodeficiencies (e.g. X-linked agammaglobulinaemia, B cell
CC immunodeficiencies, severe combined immunodeficiencies), autoimmune
CC disorders (e.g. systemic erythematosus, rheumatoid arthritis, multiple
CC sclerosis, autoimmune thyroiditis, autoimmune haemolytic anaemia,
CC Goodpasture's syndrome, Grave's disease, diabetes mellitus, dermatitis),
CC haematopoietic disorders, inflammatory conditions (e.g. septic shock,
CC sepsis, reperfusion injury, inflammatory bowel disease, Crohn's disease),
CC respiratory disorders (e.g. asthma and allergy), gastrointestinal
CC disorders, cancers (e.g. gastric, ovarian, lung, bladder, liver and
CC breast), central nervous system (CNS) disorders (e.g. ischaemic brain
CC injury and/or stroke, traumatic brain injury), neurodegenerative
CC disorders (e.g. Parkinson's disease and Alzheimer's disease, AIDS-related
CC dementia, and prion disease), cardiovascular disorders (e.g.
CC atherosclerosis, myocarditis, cardiovascular disease, and cardiopulmonary
CC bypass complications), inflammation (e.g. hepatitis, gout, trauma,
CC pancreatitis, sarcoidosis, dermatitis, allogenic transplant rejection),
CC blood-related disorders (thrombosis, arterial thrombosis),
CC hyperproliferative disorders, renal disorders (e.g. acute
CC glomerulonephritis), endocrine disorders (e.g. Addison's disease,
CC hyperthyroidism, hyperpituitarism), liver diseases and disorders,
CC reproductive system disorders (e.g. endometriosis), infectious diseases,
CC and pancreatic disorders. Many other diseases and disorders are listed in
CC the specification. They also useful as a vaccine adjuvant. Further they
CC are useful to enhance or inhibit complement mediated cell lysis, for
CC stimulating wound and tissue repair, angiogenesis, and the repair of
CC vascular or lymphatic diseases or disorders. They are also useful
CC to prevent hair loss, to modulate mammalian characteristics such as body
CC height, weight, hair colour, and to increase or decrease storage
CC capabilities, fat content, lipid, protein, carbohydrate, vitamins,
CC minerals, cofactors or other nutritional components. The proteins are
CC also useful for identifying binding partners. The present sequence
CC represents a secreted protein of the invention.
XX
SQ Sequence 298 AA;

Query Match 99.7%; Score 1517; DB 24; Length 298;
Best Local Similarity 100.0%; Pred. No. 1.4e-118;
Matches 298; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 9
ABR00172
ID ABR00172 standard; Protein; 298 AA.
XX
AC ABR00172;
XX
DT 03-APR-2003 (first entry)
XX
DE Human gene 162 encoded secreted protein HTEEB42, SEQ ID NO:461.
XX
KW Human; secreted protein; digestive disorder; gastrointestinal disorder;
KW mouth; oesophagus; stomach; small intestine; large intestine; liver;
KW biliary tract; pancreas; cancer; tumour; hyperproliferative disorder;
KW immune disorder; inflammation; infection; wound healing; drug screening;
KW chromosome identification; chromosome mapping; cytostatic; gene therapy;
KW antiinflammatory; immunosuppressive; vulnerary; chromosome 21q21.2.
XX
OS Homo sapiens.
XX
PN WO200276488-A1.
XX
PD 03-OCT-2002.
XX
PF 19-MAR-2002; 2002WO-US08276.
XX
PR 21-MAR-2001; 2001US-277340P.
PR 19-JUL-2001; 2001US-306171P.
PR 13-NOV-2001; 2001US-331287P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-029900/02.
DR N-PSDB; ABZ71351.
XX
PT New human secreted proteins and nucleic acids, useful for detecting,
PT preventing, diagnosing, prognosticating, treating and/or ameliorating
PT e.g. gastrointestinal diseases and disorders, or cancers -
XX
PS Claim 13; Page 1046-1047; 1216pp; English.
XX
CC ABZ71190-ABZ71478 represent cDNAs corresponding to 178 human secreted
CC protein genes, and ABP00011-ABP00299 represent the proteins they encode.

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CC   ABZ71479-ABZ71540 represent human secreted protein genomic fragments. The
CC   invention also encompasses antibodies specific for the secreted proteins,
CC   the use of the secreted proteins in drug screening, and recombinant
CC   vectors and host cells comprising a nucleic acid of the invention. The
CC   secreted proteins, nucleic acids encoding them, antibodies or antibody
CC   fragments specific for the secreted proteins, and modulators of protein
CC   activity are useful for diagnosing, treating, ameliorating or preventing
CC   digestive disorders. Such conditions include disorders of the mouth,
CC   oesophagus, stomach, small intestine, large intestine, liver, biliary
CC   tract and pancreas, and include cancers of these organs and tissues. The
CC   secreted proteins and their nucleic acids may also be used in the
CC   treatment of immune disorders, inflammation, infection,
CC   hyperproliferative disorders, and to promote wound healing. Nucleic acids
CC   of the invention may be used for chromosome identification, chromosome
CC   mapping, in gene therapy, for identifying individuals from minute
CC   biological samples, as hybridisation probes, and as molecular weight
CC   markers. The present sequence represents a human secreted protein of the
CC   invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.7%;  Score 1517;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-118;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 10
AAO16452
ID   AAO16452 standard; protein; 298 AA.
XX
AC   AAO16452;
XX
DT   17-APR-2003  (first entry)
XX
DE   Human junctional adhesion molecule 2 (huJAM2).
XX
KW   Human; gene therapy; extracellular region; junctional adhesion molecules;
KW   huJAM; immune system disorder; immune deficiency; autoimmune disorder;
KW   inflammatory disorder; cancer; wound healing; cardiovascular disease;
KW   full-length membrane-bound huJAM protein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..28
FT                   /label= Signal_peptide
FT   Domain          29..236
FT                   /note= "Extracellular domain; Specifically claimed
FT                   region"
FT   Protein         29..298
FT                   /note= "Mature huJAM2"
XX
PN   WO2003008541-A2.
XX
PD   30-JAN-2003.
XX
PF   05-JUL-2002; 2002WO-US19800.
XX
PR   16-JUL-2001; 2001US-305752P.
PR   05-FEB-2002; 2002US-354345P.
XX
PA   (ELIL ) LILLY & CO ELI.
XX
PI   Heuer JG,  Smith RC,  Su EW;
XX
DR   WPI; 2003-221848/21.
DR   N-PSDB; AAL51599.
XX
PT   New extracellular human junctional adhesion molecule (huJAM)
PT   polypeptide, useful for treating an immune system disorder such as an
PT   immune deficiency or an inflammatory disorder, cancer, wound healing,
PT   or a cardiovascular disease  -
XX
PS   Disclosure; Fig 1; 131pp; English.
XX
CC   The invention comprises the DNA and protein sequences of the
CC   extracellular region of human junctional adhesion molecules (huJAM). The
CC   extracellular huJAM DNA and protein sequences are useful in the treatment
CC   of: immune system disorders (e.g. immune deficiency); autoimmune
CC   disorders; inflammatory disorders; cancer; wound healing; or a
CC   cardiovascular disease. The present amino acid sequence represents the
CC   full-length membrane-bound huJAM2 protein.
XX
SQ   Sequence   298 AA;

  Query Match             99.5%;  Score 1514;  DB 24;  Length 298;
  Best Local Similarity   99.0%;  Pred. No. 2.4e-118;
  Matches  295;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||| |||||||||||||||||||||||||||||| ||||||||||||||| ||
Db          1 MARRSRHRFLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKET6FQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 11
AAM23693
ID   AAM23693 standard; Protein; 303 AA.
XX
AC   AAM23693;
XX
DT   12-OCT-2001  (first entry)
XX
DE   Human EST encoded protein SEQ ID NO: 1218.
XX
KW   Human; sheep; pig; cow; fruit fly; yeast; hamster; macaque; horse;
KW   tomato; monkey; dog; sea urchin; expressed sequence tag; EST;
KW   diagnostics; forensic test; gene mapping; genetic disorder;
KW   biodiversity; gene therapy; nutrition.
XX
OS   Homo sapiens.
```

XX
PN WO200154477-A2.
XX
PD 02-AUG-2001.
XX
PF 25-JAN-2001; 2001WO-US02687.
XX
PR 25-JAN-2000; 2000US-0491404.
PR 17-JUL-2000; 2000US-0617746.
PR 03-AUG-2000; 2000US-0631451.
PR 15-SEP-2000; 2000US-0663870.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Zhou P, Qian XB, Wang Z, Chen R, Asundi V;
PI Cao Y, Drmanac RA, Zhang J, Werhman T;
XX
DR WPI; 2001-476164/51.
DR N-PSDB; AAH98352.
XX
PT Isolated polypeptide for treatment of diseases, diagnostics, raising
PT antibodies and research use -
XX
PS Claim 20; Page 878-879; 1275pp; English.
XX
CC The present invention provides the protein and coding sequences of novel
CC proteins from a variety of organisms, including human, dog, cat, horse,
CC cow, pig, hamster, monkey, macaque, yeast, bacteria, fruit fly, sea
CC urchin and tomato. These were derived from expressed sequence tags (ESTs)
CC from the organism of interest. They can be used in diagnostics,
CC forensics, gene mapping, identification of mutations, to assess
CC biodiversity and for nutritional purposes. The present sequence is a
CC protein of the invention.
XX
SQ Sequence 303 AA;

Query Match 98.8%; Score 1502.5; DB 22; Length 303;
Best Local Similarity 97.4%; Pred. No. 2.3e-117;
Matches 295; Conservative 1; Mismatches 2; Indels 5; Gaps 1;

```
Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||||||||||||||||||||||||||||||||||||| ||||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVL-----VAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRL 175
              |||||||||||     :|||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLGDVHVLAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRL 180

Qy        176 LENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDL 235
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDL 240

Qy        236 NISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKS 295
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 NISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKS 300

Qy        296 FII 298
              |||
Db        301 FII 303
```

RESULT 12
AAY08060
ID AAY08060 standard; Protein; 312 AA.
XX
AC AAY08060;
XX
DT 11-SEP-2000 (first entry)
XX
DE Human PRO245 protein.
XX
KW Inflammatory cell infiltration; immune response; T cell proliferation;
KW anti-inflammatory; anti-autoimmune; anti-diabetic; spondyloarthropathy;
KW T cell-mediated disease; spondyloarthropathy; sclerosis; renal disease;
KW inflammatory myopathy; hemolytic anemia; thrombocytopenia; thyroiditis;
KW diabetes mellitus; demyelinating polyneuropathy; Guillain-Barre syndrome;
KW multiple sclerosis; polyneuropathy; hepatitis; cirrhosis; enteropathy;
KW sclerosing cholangitis; inflammatory bowel disease; Whipple's disease;
KW skin disease; dermatitis; psoriasis; asthma; allergic rhinitis; tumor;
KW food hypersensitivity; urticaria; eosinophilic pneumonia; transplant;
KW idiopathic pulmonary fibrosis; graft rejection; PRO245; human.
XX
OS Homo sapiens.
XX
PN WO9914241-A2.
XX
PD 25-MAR-1999.
XX
PF 17-SEP-1998; 98WO-US19437.
XX
PR 17-SEP-1997; 97US-0059119.
PR 18-SEP-1997; 97US-0059263.
PR 28-OCT-1997; 97US-0063550.
PR 12-NOV-1997; 97US-0065186.
PR 21-NOV-1997; 97US-0066364.
PR 24-NOV-1997; 97US-0066770.
PR 04-JUN-1998; 98US-0088026.
XX
PA (GETH) GENENTECH INC.
XX
PI Fong S, Goddard A, Gurney AL, Tumas D, Wood WI;
XX
DR WPI; 1999-229499/19.
DR N-PSDB; AAX37664.
XX
PT Composition containing novel polypeptide PRO245, its agonist or
PT antagonist -
XX
PS Example 1; Fig 2; 177pp; English.
XX
CC This invention describes a novel composition containing (apart from a
CC carrier or excipient), a novel PRO245 polypeptide (I), its agonist or
CC antagonist, or their fragments, for modulating: (i) infiltration of
CC inflammatory cells into tissue; (ii) an immune response; or (iii) T cell
CC proliferation. The composition increases or decreases any of the effects
CC (i)-(iii). The products of the invention have anti-inflammatory,
CC anti-autoimmune and anti-diabetic activity. (I), and its (ant)agonists
CC and their fragments, are used to treat immune-related diseases,
CC particularly T cell-mediated diseases. The diseases treated include
CC systemic lupus erythematosus, rheumatoid arthritis, juvenile chronic
CC arthritis, spondyloarthropathies, systemic sclerosis (scleroderma),
CC idiopathic inflammatory myopathies (dermatomyositis, polymyositis),
CC Sjogren's syndrome, systemic vasculitis, sarcoidosis, autoimmune
CC hemolytic anemia (immune pancytopenia, paroxysmal nocturnal
CC hemoglobinuria), autoimmune thrombocytopenia (idiopathic thrombocytopenic
CC purpura immune-mediated thrombocytopenia), thyroiditis (Grave's disease,
CC Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC thyroiditis), diabetes mellitus, immune-mediated renal disease
CC (glomerulonephritis, tubulointerstitial nephritis), multiple sclerosis,
CC idiopathic demyelinating polyneuropathy, Guillain-Barre syndrome, chronic
CC inflammatory demyelinating polyneuropathy, infectious hepatitis
CC (hepatitis A, B, C, D, E and other non-hepatotropic viruses), autoimmune
CC chronic active hepatitis, primary biliary cirrhosis, granulomatous
CC hepatitis, and sclerosing cholangitis, inflammatory bowel disease
CC (ulcerative colitis: Crohn's disease), gluten-sensitive enteropathy, and
CC Whipple's disease. Autoimmune or immune-mediated skin diseases including
CC bullous skin diseases, erythema multiforme,contact dermatitis, psoriasis,
CC asthma, allergic rhinitis, atopic dermatitis, food hypersensitivity,
CC urticaria, eosinophilic pneumonia, idiopathic pulmonary fibrosis,
CC hypersensitivity pneumonitis, and transplantation associated diseases
CC (graft rejection, and graft-versus-host-disease). (I), its (ant)agonists
CC or fragment can also be used as an adjuvant in treatment of tumors.

```
CC   Antibodies against (I) can also be used for diagnosing such diseases.
CC   This sequence represents the human PRO245 protein described in the
CC   invention.
XX
SQ   Sequence   312 AA;

  Query Match            96.3%;  Score 1465;  DB 20;  Length 312;
  Best Local Similarity  99.3%;  Pred. No. 3.2e-114;
  Matches  286;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||||||||||||||||||||||||||||||||||||| ||||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 13
AAY23324
ID   AAY23324 standard; Protein; 312 AA.
XX
AC   AAY23324;
XX
DT   02-SEP-1999  (first entry)
XX
DE   A33 related antigen PRO245.
XX
KW   A33 related antigen; PRO301; PRO362; PRO245; inflammatory disease;
KW   tumour.
XX
OS   Homo sapiens.
XX
PN   WO9927098-A2.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-US24855.
XX
PR   17-SEP-1998;   98WO-US19437.
PR   21-NOV-1997;   97US-0066364.
PR   20-MAR-1998;   98US-0078936.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Ashkenazi A,  Fong S,  Goddard A,  Gurney AL,  Napier MA;
PI   Tumas D,  Wood WI;
XX
DR   WPI; 1999-404743/34.
DR   N-PSDB; AAX81770.
XX
PT   Antigens PRO301, PRO362 and PRO245 related to A33
XX
PS   Example 3; Fig 11; 122pp; English.
XX
CC   The specification describes A33 related antigens PRO301, PRO362 and
CC   PRO245. The methods and compositions of the invention are useful for the
CC   treatment and diagnosis of inflammatory disease and tumours in mammals.
CC   Such inflammatory diseases include of inflammatory bowel disease,
CC   systemic lupus erythematosis, rheumatoid arthritis, juvenile chronic
CC   arthritis, spondyloarthropathies, systemic sclerosis, scleroderma,
CC   idiopathic inflammatory myopathies, dermatomyositis, polymyositis,
CC   Sjogren's syndrome, systemic vaculitis, sarcoidosis, autoimmune hemolytic
CC   anemia, immune pancytopenia, paroxysmal nocturnal hemoglobinuria,
CC   autoimmune thrombocytopenia, idiopathic thrombocytopenic purpura,
CC   immune-mediated thrombocytopenia, thyroiditis, Grave's disease,
CC   Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC   thyroiditis, diabetes mellitus, immune-mediated renal disease,
CC   glomerulonephritis, tubulointerstitial nephritis, demyelinating diseases
CC   of the central and peripheral nervous systems such as multiple sclerosis,
CC   idiopathic polyneuropathy, hepatobiliary diseases, infectious hepatitis
CC   A, B, C, D, E, nonhepatotropic viruses, autoimmune chronic active
CC   hepatitis, primary biliary cirrhosis, granulomatous hepatitis, sclerosing
CC   cholangitis, inflammatory and fibrotic lung diseases, gluten-sensitive
CC   enteropathy, Whipple's disease, autoimmune or immune-mediated skin
CC   diseases allergic diseases of the lung such as eosinophilic pneumonias,
CC   idiopathic pulmonary fibrosis and hypersensitivity pneumonitis
CC   transplantation associated diseases disease. The present sequence
CC   represents PRO245.
XX
SQ   Sequence   312 AA;

  Query Match            96.3%;  Score 1465;  DB 20;  Length 312;
  Best Local Similarity  99.3%;  Pred. No. 3.2e-114;
  Matches  286;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||||||||||||||||||||||||||||||||||||| ||||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 14
AAY13354
ID   AAY13354 standard; Protein; 312 AA.
XX
AC   AAY13354;
XX
DT   25-JUN-1999  (first entry)
XX
DE   Amino acid sequence of protein PRO245.
XX
KW   Secreted protein; transmembrane protein; human; enterocolitis;
KW   Zollinger-Ellison syndrome; gastrointestinal ulceration;
KW   congenital microvillus atrophy; skin disease; cell growth;
KW   abnormal keratinocyte differentiation; psoriasis; epithelial cancer;
KW   Parkinson's disease; Alzheimer's disease; ALS; neuropathy;
KW   fibromodulin; dermal scarring; Usher Syndrome; Atrophia areata;
KW   anti-thrombotic; wound healing; tissue repair.
XX
OS   Homo sapiens.
XX
PN   WO9914328-A2.
XX
PD   25-MAR-1999.
XX
PF   16-SEP-1998;   98WO-US19330.
XX
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```
PR   25-NOV-1997;   97US-0066840.
PR   17-SEP-1997;   97US-0059113.
PR   17-SEP-1997;   97US-0059115.
PR   17-SEP-1997;   97US-0059117.
PR   17-SEP-1997;   97US-0059119.
PR   17-SEP-1997;   97US-0059121.
PR   17-SEP-1997;   97US-0059122.
PR   17-SEP-1997;   97US-0059184.
PR   18-SEP-1997;   97US-0059263.
PR   18-SEP-1997;   97US-0059266.
PR   15-OCT-1997;   97US-0062125.
PR   17-OCT-1997;   97US-0062285.
PR   17-OCT-1997;   97US-0062287.
PR   21-OCT-1997;   97US-0063486.
PR   24-OCT-1997;   97US-0062814.
PR   24-OCT-1997;   97US-0062816.
PR   24-OCT-1997;   97US-0063045.
PR   24-OCT-1997;   97US-0063120.
PR   24-OCT-1997;   97US-0063121.
PR   24-OCT-1997;   97US-0063127.
PR   24-OCT-1997;   97US-0063128.
PR   27-OCT-1997;   97US-0063329.
PR   27-OCT-1997;   97US-0063327.
PR   28-OCT-1997;   97US-0063541.
PR   28-OCT-1997;   97US-0063542.
PR   28-OCT-1997;   97US-0063544.
PR   28-OCT-1997;   97US-0063549.
PR   28-OCT-1997;   97US-0063550.
PR   28-OCT-1997;   97US-0063564.
PR   29-OCT-1997;   97US-0063435.
PR   29-OCT-1997;   97US-0063704.
PR   29-OCT-1997;   97US-0063732.
PR   29-OCT-1997;   97US-0063738.
PR   29-OCT-1997;   97US-0063734.
PR   29-OCT-1997;   97US-0064215.
PR   29-OCT-1997;   97US-0063735.
PR   31-OCT-1997;   97US-0063870.
PR   31-OCT-1997;   97US-0064103.
PR   03-NOV-1997;   97US-0064248.
PR   07-NOV-1997;   97US-0064809.
PR   12-NOV-1997;   97US-0065186.
PR   17-NOV-1997;   97US-0065846.
PR   18-NOV-1997;   97US-0065693.
PR   21-NOV-1997;   97US-0066120.
PR   21-NOV-1997;   97US-0066364.
PR   24-NOV-1997;   97US-0066772.
PR   24-NOV-1997;   97US-0066466.
PR   24-NOV-1997;   97US-0066770.
PR   24-NOV-1997;   97US-0066511.
PR   24-NOV-1997;   97US-0066453.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Chen J,  Goddard A,  Gurney AL,  Pennica D,  Wood WI,  Yuan J;
XX
DR   WPI; 1999-229533/19.
DR   N-PSDB; AAX52225.
XX
PT   New isolated human genes and polypeptides used in, e.g. treatment of
PT   gastrointestinal ulceration
XX
PS   Claim 12; Fig 24; 320pp; English.
XX
CC   AAY13344-403 represent secreted and transmembrane human proteins.
CC   The cDNA sequences are obtained from cDNA libraries, prepared from
CC   fetal lung, fetal kidney, fetal brain, fetal liver and fetal retina.
CC   The encoded polypeptides have specific uses based on their homology to
CC   known polypeptides, e.g. PRO211 and PRO217 can be used for disorders
CC   associated with the preservation and maintenance of gastrointestinal
CC   mucosa and the repair of acute and chronic mucosal lesions
CC   (e.g. enterocolitis, Zollinger-Ellison syndrome, gastrointestinal
CC   ulceration and congenital microvillus atrophy), skin diseases associated
CC   with abnormal keratinocyte differentiation (e.g. psoriasis, epithelial
CC   cancers such as lung squamous cell carcinoma of the vulva and gliomas),
CC   potent effects on cell growth and development, diseases related to
CC   growth or survival of nerve cells including Parkinson's disease,
CC   Alzheimer's disease, ALS, neuropathies or cancer. PRO265 can be used as
CC   for fibromodulin, e.g. for reducing dermal scarring.  PRO264 can be used
CC   as a target for anti-tumor drugs. PRO533 may be used in the treatment
CC   of Usher Syndrome or Atrophia areata; PRO269 can be used as an
CC   anti-thrombotic agent; PRO287 polypeptides and portions may have
CC   therapeutic applications in wound healing and tissue repair; PRO317 can
CC   be used for treating problems of the kidney, uterus, endometrium, blood
CC   vessels, or related tissue, e.g. in the heart of genital tract.
XX
SQ   Sequence   312 AA;

  Query Match             96.3%;  Score 1465;  DB 20;  Length 312;
  Best Local Similarity   99.3%;  Pred. No. 3.2e-114;
  Matches  286;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 15
AAB33421
ID   AAB33421 standard; Protein; 312 AA.
XX
AC   AAB33421;
XX
DT   29-JAN-2001  (first entry)
XX
DE   Human PRO245 protein UNQ219 SEQ ID NO:36.
XX
KW   Human; immune related disease; diagnosis; antiinflammatory; cardiant;
KW   dermatological; antiarthritic; antirheumatic; immunosuppressive;
KW   haemostatic; antithyroid; antidiabetic; nootropic; neuroprotective;
KW   antianaemic; hepatotropic; virucide; antipsoriatic; antiallergic;
KW   antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis;
KW   osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis;
KW   idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis;
KW   systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus;
KW   autoimmune thrombocytopaenia; immune-mediated renal disease;
KW   demyelinating disease; hepatobiliary disease; Whipple's disease;
KW   inflammatory bowel disease; gluten-sensitive enteropathy;
KW   autoimmune disease; immune-mediated skin disease; allergic disease;
KW   immunological disease; transplantation associated disease;
KW   graft rejection; graft-versus-host-disease.
XX
OS   Homo sapiens.
XX
PN   WO200053758-A2.
XX
PD   14-SEP-2000.
XX
PF   02-MAR-2000; 2000WO-US05841.
XX
PR   08-MAR-1999;   99WO-US05028.
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PR   10-MAR-1999;   99US-0123618.
PR   12-MAR-1999;   99US-0123957.
PR   23-MAR-1999;   99US-0125775.
PR   12-APR-1999;   99US-0128849.
PR   20-APR-1999;   99WO-US08615.
PR   28-APR-1999;   99US-0131445.
PR   04-MAY-1999;   99US-0132371.
PR   14-MAY-1999;   99US-0134287.
PR   02-JUN-1999;   99WO-US12252.
PR   23-JUN-1999;   99US-0141037.
PR   20-JUL-1999;   99US-0144758.
PR   26-JUL-1999;   99US-0145698.
PR   28-JUL-1999;   99US-0146222.
PR   01-SEP-1999;   99WO-US20111.
PR   08-SEP-1999;   99WO-US20594.
PR   13-SEP-1999;   99WO-US20944.
PR   15-SEP-1999;   99WO-US21090.
PR   15-SEP-1999;   99WO-US21547.
PR   05-OCT-1999;   99WO-US23089.
PR   29-OCT-1999;   99US-0162506.
PR   29-NOV-1999;   99WO-US28214.
PR   30-NOV-1999;   99WO-US28313.
PR   30-NOV-1999;   99WO-US28409.
PR   01-DEC-1999;   99WO-US28301.
PR   01-DEC-1999;   99WO-US28634.
PR   02-DEC-1999;   99WO-US28551.
PR   02-DEC-1999;   99WO-US28564.
PR   02-DEC-1999;   99WO-US28565.
PR   16-DEC-1999;   99WO-US30095.
PR   20-DEC-1999;   99WO-US30999.
PR   30-DEC-1999;   99WO-US31274.
PR   05-JAN-2000; 2000WO-US00219.
PR   06-JAN-2000; 2000WO-US00277.
PR   06-JAN-2000; 2000WO-US00376.
PR   11-FEB-2000; 2000WO-US03565.
PR   18-FEB-2000; 2000WO-US04341.
PR   18-FEB-2000; 2000WO-US04342.
PR   22-FEB-2000; 2000WO-US04414.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Ashkenazi AJ,  Baker KP,  Goddard A,  Gurney AL,  Hebert C,  Henzel W;
PI   Kabakoff RC,  Lu Y,  Pan J,  Pennica D,  Shelton DL,  Smith V;
PI   Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Yan M;
XX
DR   WPI; 2000-572271/53.
DR   N-PSDB; AAC58586.
XX
PT   Sixty four PRO polypeptides, useful in the diagnosis and treatment of
PT   immune related disorders, e.g. systemic lupus erythematosis, rheumatoid
PT   arthritis, osteoarthritis, thyroiditis and diabetes mellitus -
XX
PS   Claim 33; Fig 16; 309pp; English.
XX
CC   The present invention describes sixty four human PRO proteins which can
CC   be used in the treatment of immune related diseases. The human PRO
CC   proteins, anti-PRO antibodies, agonists and antagonists are useful for
CC   treating and diagnosing immune related disorders. The disorders are
CC   selected from systemic lupus erythematosus, rheumatoid arthritis,
CC   osteoarthritis, juvenile chronic arthritis, spondyloarthropathies,
CC   systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's
CC   syndrome, systemic vasculitis, sarcoidosis, autoimmune haemolytic
CC   anaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus,
CC   immune-mediated renal disease, demyelinating diseases of the central
CC   and peripheral nervous systems, hepatobiliary diseases, inflammatory
CC   bowel disease, gluten-sensitive enteropathy and Whipple's disease,
CC   autoimmune or immune-mediated skin diseases, allergic diseases,
CC   immunological diseases of the lung, and transplantation associated
CC   diseases including graft rejection and graft-versus-host-disease.
CC   AAC58397 to AAC58578 represent PCR primers and hybridisation probes used
CC   in the isolation of human PRO sequences. AAC58579 to AAC58642 and
CC   AAB33414 to AAB33477 represent human PRO polynucleotide and protein
CC   sequences given in the exemplification of the present invention.
XX
SQ   Sequence   312 AA;

  Query Match             96.3%;  Score 1465;  DB 21;  Length 312;
  Best Local Similarity   99.3%;  Pred. No. 3.2e-114;
  Matches  286;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||||||||||||||||||||||||||||||||||| ||||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
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Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


Search completed: December  9, 2003, 17:11:12
Job time : 41.4564 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:10:36 ; Search time 15.5749 Seconds
(without alignments)
809.548 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 1521
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
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2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
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6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1517	99.7	298	4	US-09-152-060-76	Sequence 76, Appl
2	1465	96.3	312	4	US-09-254-465A-9	Sequence 9, Appli
3	429	28.2	299	3	US-09-188-930-189	Sequence 189, App
4	429	28.2	299	3	US-09-188-930-331	Sequence 331, App
5	429	28.2	299	4	US-09-462-270-2	Sequence 2, Appli
6	429	28.2	299	4	US-09-254-465A-1	Sequence 1, Appli
7	429	28.2	299	4	US-09-312-283C-189	Sequence 189, App
8	429	28.2	299	4	US-09-312-283C-331	Sequence 331, App
9	421	27.7	300	4	US-09-254-465A-10	Sequence 10, Appl
10	399	26.2	260	4	US-09-254-465A-23	Sequence 23, Appl
11	399	26.2	263	4	US-09-254-465A-25	Sequence 25, Appl
12	271.5	17.9	205	4	US-09-462-270-4	Sequence 4, Appli
13	231	15.2	270	4	US-09-254-465A-24	Sequence 24, Appl
14	231	15.2	273	4	US-09-254-465A-26	Sequence 26, Appl
15	231	15.2	319	1	US-08-597-495B-22	Sequence 22, Appl
16	231	15.2	319	3	US-09-068-051A-22	Sequence 22, Appl
17	231	15.2	319	4	US-09-336-536-67	Sequence 67, Appl
18	231	15.2	319	4	US-09-254-465A-6	Sequence 6, Appli
19	219	14.4	318	3	US-09-068-051A-32	Sequence 32, Appl
20	210	13.8	387	4	US-09-175-928-2	Sequence 2, Appli
21	202	13.3	390	2	US-08-979-424-1	Sequence 1, Appli
22	201.5	13.2	394	4	US-09-336-536-39	Sequence 39, Appl
23	200	13.1	341	4	US-09-336-536-29	Sequence 29, Appl
24	200	13.1	370	4	US-09-336-536-28	Sequence 28, Appl
25	196	12.9	365	4	US-09-336-536-40	Sequence 40, Appl
26	195.5	12.9	352	4	US-09-996-243-505	Sequence 505, App
27	195.5	12.9	365	2	US-08-979-424-3	Sequence 3, Appli
28	195.5	12.9	365	3	US-09-272-496-2	Sequence 2, Appli
29	191.5	12.6	365	3	US-08-928-383B-2	Sequence 2, Appli
30	183	12.0	249	4	US-09-336-536-42	Sequence 42, Appl
31	183	12.0	365	3	US-08-928-383B-23	Sequence 23, Appl
32	183	12.0	365	3	US-08-928-383B-24	Sequence 24, Appl
33	180	11.8	365	3	US-08-928-383B-26	Sequence 26, Appl
34	178.5	11.7	246	4	US-09-336-536-31	Sequence 31, Appl
35	175.5	11.5	466	4	US-09-604-107A-8	Sequence 8, Appli
36	169.5	11.1	373	4	US-09-996-243-503	Sequence 503, App
37	161.5	10.6	442	4	US-09-778-510-20	Sequence 20, Appl
38	160.5	10.6	805	3	US-08-985-526-34	Sequence 34, Appl
39	160.5	10.6	806	2	US-08-443-861-5	Sequence 5, Appli
40	160.5	10.6	806	3	US-08-193-829B-5	Sequence 5, Appli
41	160.5	10.6	1367	1	US-07-813-593-4	Sequence 4, Appli
42	160.5	10.6	1367	1	US-07-977-451-6	Sequence 6, Appli
43	160.5	10.6	1367	1	US-07-946-507-4	Sequence 4, Appli
44	160.5	10.6	1367	1	US-08-252-517-6	Sequence 6, Appli
45	160.5	10.6	1367	1	US-07-906-397A-6	Sequence 6, Appli

ALIGNMENTS

RESULT 1
US-09-152-060-76
; Sequence 76, Application US/09152060
; Patent No. 6448230
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 28 Human Secreted Proteins
; FILE REFERENCE: PZ003P1.US
; CURRENT APPLICATION NUMBER: US/09/152,060
; CURRENT FILING DATE: 1998-09-11
; EARLIER APPLICATION NUMBER: PCT/US98/04858
; EARLIER FILING DATE: 1998-03-12
; EARLIER APPLICATION NUMBER: 60/040,762
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/040,710
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/050,934
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,100
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,357
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,189
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/057,765
; EARLIER FILING DATE: 1997-09-05
; EARLIER APPLICATION NUMBER: 60/048,970
; EARLIER FILING DATE: 1997-06-06
; EARLIER APPLICATION NUMBER: 60/068,368
; EARLIER FILING DATE: 1997-12-19
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
; LENGTH: 298
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (42)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (58)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-152-060-76

Query Match 99.7%; Score 1517; DB 4; Length 298;
Best Local Similarity 100.0%; Pred. No. 9.4e-142;
Matches 298; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
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Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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RESULT 2
US-09-254-465A-9
; Sequence 9, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Fong, Sherman
; APPLICANT: Goddard, Audrey
; APPLICANT: Gurney, Austin L.
; APPLICANT: Napier, Mary A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Wood, William I.
; TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
; TITLE OF INVENTION: OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
; FILE REFERENCE: P1216R1(US)
; CURRENT APPLICATION NUMBER: US/09/254,465A
; CURRENT FILING DATE: 1999-03-05
; PRIOR APPLICATION NUMBER: PCT/US98/24855
; PRIOR FILING DATE: 1998-11-20
; PRIOR APPLICATION NUMBER: US 60/066,364
; PRIOR FILING DATE: 1997-11-21
; PRIOR APPLICATION NUMBER: US 60/078,936
; PRIOR FILING DATE: 1998-03-20
; PRIOR APPLICATION NUMBER: PCT/US98/19437
; PRIOR FILING DATE: 1998-09-17
; NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 9
; LENGTH: 312
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-254-465A-9

Query Match 96.3%; Score 1465; DB 4; Length 312;
Best Local Similarity 99.3%; Pred. No. 1.4e-136;
Matches 286; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
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Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 3
US-09-188-930-189
; Sequence 189, Application US/09188930A
; Patent No. 6150502
; GENERAL INFORMATION:
; APPLICANT: Watson, James D.
; APPLICANT: Strachan, Lorna
; APPLICANT: Sleeman, Matthew
; APPLICANT: Onrust, Rene
; APPLICANT: Murison, James Greg
; TITLE OF INVENTION: Compositions Isolated From Skin Cells
; TITLE OF INVENTION: and Methods For Their Use
; FILE REFERENCE: 11000.1011c1
; CURRENT APPLICATION NUMBER: US/09/188,930A
; CURRENT FILING DATE: 1998-11-09
; NUMBER OF SEQ ID NOS: 348
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 189
; LENGTH: 299
; TYPE: PRT
; ORGANISM: Human
; FEATURE:
; NAME/KEY: UNSURE
; LOCATION: (247)...(247)
; NAME/KEY: UNSURE
; LOCATION: (289)...(289)
US-09-188-930-189

Query Match 28.2%; Score 429; DB 3; Length 299;
Best Local Similarity 34.2%; Pred. No. 2.7e-34;
Matches 106; Conservative 50; Mismatches 126; Indels 28; Gaps 8;

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Qy         56 TVXSRLEWK-KLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAP 114
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Qy        175 LLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK-RMQVD 233
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Qy        234 DLNISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKA-----TTMSEN 288
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Qy        289 DFKHTKSFII 298
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Db        290 EFKQTSSFLV 299
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RESULT 4
US-09-188-930-331
; Sequence 331, Application US/09188930A
; Patent No. 6150502
; GENERAL INFORMATION:
; APPLICANT: Watson, James D.
; APPLICANT: Strachan, Lorna
; APPLICANT: Sleeman, Matthew
; APPLICANT: Onrust, Rene
; APPLICANT: Murison, James Greg

```
;  TITLE OF INVENTION: Compositions Isolated From Skin Cells
;  TITLE OF INVENTION: and Methods For Their Use
;  FILE REFERENCE: 11000.1011c1
;  CURRENT APPLICATION NUMBER: US/09/188,930A
;  CURRENT FILING DATE: 1998-11-09
;  NUMBER OF SEQ ID NOS: 348
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 331
;   LENGTH: 299
;   TYPE: PRT
;   ORGANISM: Human
US-09-188-930-331

  Query Match             28.2%;  Score 429;  DB 3;  Length 299;
  Best Local Similarity   34.2%;  Pred. No. 2.7e-34;
  Matches  106;  Conservative   50;  Mismatches  126;  Indels   28;  Gaps    8;

Qy          2 ARRSRHRLLLLLLRYLVVALGYHKAYGFSA------PKDQQVVTAVXYQEAILACKTPKK 55
              |:  |   | | :|  |: :|         |:      |::  |  :  |         :|
Db          5 AQVERKLLCLFILAILLCSLALGSVTVHSSEPEVRIPENNPVKLSCAYS----GFSSP-- 58

Qy         56 TVXSRLEWK-KLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAP 114
                 |:|||    | :   | |    :   :::|   :    |  |:||| | | | | ||
Db         59 ----RVEWKFDQGDTTRLVCYNNKITASYEDRVTFLPTGITFKSVTREDTGTYTCMVS-- 112

Qy        115 SEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIR 174
              | | :   |  | | ||| |: |:  :|||   |     | | :::|:|  |||||||||
Db        113 EEGGNSYGEVKVKLIVLVPPSKPTVNIPSSATIGNRAVLTCSEQDGSPPSEYTWFKDGIV 172

Qy        175 LLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK-RMQVD 233
              :  ||:     :|||| :|  || | |: :|  ||||||||||  |         ||:
Db        173 MPTNPKSTRAFSNSSYVLNPTTGELVFDPLSASDTGEYSCEARNGYGTPMTSNAVRMEAV 232

Qy        234 DLNISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKA-----TTMSEN 288
              : |:  |:|||:|  ::: :   |: :|  :|:| :    :|  || |      :  ||
Db        233 ERNVGVIVAAVLVTLILLGILVFGIWFAYSRGHFDRT---KKGTSSKKVIYSQPSARSEG 289

Qy        289 DFKHTKSFII 298
              :|| | ||::
Db        290 EFKQTSSFLV 299


RESULT 5
US-09-462-270-2
; Sequence 2, Application US/09462270
; Patent No. 6358707
; GENERAL INFORMATION:
;  APPLICANT:  SmithKline Beecham Corporation
;  TITLE OF INVENTION:  Human F11 Antigen: A Cell Surface
;  TITLE OF INVENTION:  Receptor   Involved in Platelet Aggregation
;  FILE REFERENCE:  GH-70150US
;  CURRENT APPLICATION NUMBER: US/09/462,270
;  CURRENT FILING DATE:  2000-01-05
;  PRIOR APPLICATION NUMBER:  60/052,186
;  PRIOR FILING DATE:  1997-07-10
;  NUMBER OF SEQ ID NOS:  4
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 2
;   LENGTH: 299
;   TYPE: PRT
;   ORGANISM: HOMO SAPIENS
US-09-462-270-2

  Query Match             28.2%;  Score 429;  DB 4;  Length 299;
  Best Local Similarity   34.2%;  Pred. No. 2.7e-34;
  Matches  106;  Conservative   50;  Mismatches  126;  Indels   28;  Gaps    8;

Qy          2 ARRSRHRLLLLLLRYLVVALGYHKAYGFSA------PKDQQVVTAVXYQEAILACKTPKK 55
              |:  |   | | :|  |: :|         |:      |::  |  :  |         :|
Db          5 AQVERKLLCLFILAILLCSLALGSVTVHSSEPEVRIPENNPVKLSCAYS----GFSSP-- 58

Qy         56 TVXSRLEWK-KLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAP 114
                 |:|||    | :   | |    :   :::|   :    |  |:||| | | | | ||
Db         59 ----RVEWKFDQGDTTRLVCYNNKITASYEDRVTFLPTGITFKSVTREDTGTYTCMVS-- 112

Qy        115 SEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIR 174
              | | :   |  | | ||| |: |:  :|||   |     | | :::|:|  |||||||||
Db        113 EEGGNSYGEVKVKLIVLVPPSKPTVNIPSSATIGNRAVLTCSEQDGSPPSEYTWFKDGIV 172

Qy        175 LLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK-RMQVD 233
              :  ||:     :|||| :|  || | |: :|  ||||||||||  |         ||:
Db        173 MPTNPKSTRAFSNSSYVLNPTTGELVFDPLSASDTGEYSCEARNGYGTPMTSNAVRMEAV 232

Qy        234 DLNISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKA-----TTMSEN 288
              : |:  |:|||:|  ::: :   |: :|  :|:| :    :|  || |      :  ||
Db        233 ERNVGVIVAAVLVTLILLGILVFGIWFAYSRGHFDRT---KKGTSSKKVIYSQPSARSEG 289

Qy        289 DFKHTKSFII 298
              :|| | ||::
Db        290 EFKQTSSFLV 299


RESULT 6
US-09-254-465A-1
; Sequence 1, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 1
;   LENGTH: 299
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-1

  Query Match             28.2%;  Score 429;  DB 4;  Length 299;
  Best Local Similarity   34.2%;  Pred. No. 2.7e-34;
  Matches  106;  Conservative   50;  Mismatches  126;  Indels   28;  Gaps    8;

Qy          2 ARRSRHRLLLLLLRYLVVALGYHKAYGFSA------PKDQQVVTAVXYQEAILACKTPKK 55
              |:  |   | | :|  |: :|         |:      |::  |  :  |         :|
Db          5 AQVERKLLCLFILAILLCSLALGSVTVHSSEPEVRIPENNPVKLSCAYS----GFSSP-- 58

Qy         56 TVXSRLEWK-KLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAP 114
                 |:|||    | :   | |    :   :::|   :    |  |:||| | | | | ||
Db         59 ----RVEWKFDQGDTTRLVCYNNKITASYEDRVTFLPTGITFKSVTREDTGTYTCMVS-- 112

Qy        115 SEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIR 174
              | | :   |  | | ||| |: |:  :|||   |     | | :::|:|  |||||||||
Db        113 EEGGNSYGEVKVKLIVLVPPSKPTVNIPSSATIGNRAVLTCSEQDGSPPSEYTWFKDGIV 172

Qy        175 LLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK-RMQVD 233
              :  ||:     :|||| :|  || | |: :|  ||||||||||  |         ||:
Db        173 MPTNPKSTRAFSNSSYVLNPTTGELVFDPLSASDTGEYSCEARNGYGTPMTSNAVRMEAV 232

Qy        234 DLNISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKA-----TTMSEN 288
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                : |:  |:|||:|  ::: :   |: :|  :|:| :    :|  || |      :  ||
Db        233 ERNVGVIVAAVLVTLILLGILVFGIWFAYSRGHFDRT---KKGTSSKKVIYSQPSARSEG 289

Qy        289 DFKHTKSFII 298
              :|| | ||::
Db        290 EFKQTSSFLV 299


RESULT 7
US-09-312-283C-189
; Sequence 189, Application US/09312283C
; Patent No. 6573095
; GENERAL INFORMATION:
;  APPLICANT: Watson, James D.
;  APPLICANT:  Strachan, Lorna
;  APPLICANT:  Sleeman, Matthew
;  APPLICANT:  Onrust, Rene
;  APPLICANT:  Murison, James G.
;  APPLICANT:  Kumble, Krishanand D.
;  TITLE OF INVENTION: Compositions Isolated from Skin Cells
;  TITLE OF INVENTION:  and Methods for Their Use
;  FILE REFERENCE: 11000.1011c2
;  CURRENT APPLICATION NUMBER: US/09/312,283C
;  CURRENT FILING DATE:  1999-05-14
;  NUMBER OF SEQ ID NOS: 425
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 189
;   LENGTH: 299
;   TYPE: PRT
;   ORGANISM: Mouse
US-09-312-283C-189

  Query Match             28.2%;  Score 429;  DB 4;  Length 299;
  Best Local Similarity   34.2%;  Pred. No. 2.7e-34;
  Matches  106;  Conservative   50;  Mismatches  126;  Indels   28;  Gaps    8;

Qy          2 ARRSRHRLLLLLLRYLVVALGYHKAYGFSA------PKDQQVVTAVXYQEAILACKTPKK 55
              |:  |  | | :|  |: :|        |:      |::  |  :  |        :|
Db          5 AQVERKLLCLFILAILLCSLALGSVTVHSSEPEVRIPENNPVKLSCAYS----GFSSP-- 58

Qy         56 TVXSRLEWK-KLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAP 114
                 |:|||   | :   | |   :   :::|   :   |  |:||| | | | | ||
Db         59 ----RVEWKFDQGDTTRLVCYNNKITASYEDRVTFLPTGITFKSVTREDTGTYTCMVS-- 112

Qy        115 SEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIR 174
              | | :  |  | | ||| |: |:  :|||  |    | | :::|:|  |||||||||
Db        113 EEGGNSYGEVKVKLIVLVPPSKPTVNIPSSATIGNRAVLTCSEQDGSPPSEYTWFKDGIV 172

Qy        175 LLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK-RMQVD 233
              :  ||:     :|||| :|  || | |: :|  ||||||||||  |        ||:
Db        173 MPTNPKSTRAFSNSSYVLNPTTGELVFDPLSASDTGEYSCEARNGYGTPMTSNAVRMEAV 232

Qy        234 DLNISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKA-----TTMSEN 288
              : |:  |:|||:|  ::: :   |: :|  :|:| :    :|  || |      :  ||
Db        233 ERNVGVIVAAVLVTLILLGILVFGIWFAYSRGHFDRT---KKGTSSKKVIYSQPSARSEG 289

Qy        289 DFKHTKSFII 298
              :|| | ||::
Db        290 EFKQTSSFLV 299


RESULT 8
US-09-312-283C-331
; Sequence 331, Application US/09312283C
; Patent No. 6573095
; GENERAL INFORMATION:
;  APPLICANT: Watson, James D.
;  APPLICANT:  Strachan, Lorna
;  APPLICANT:  Sleeman, Matthew
;  APPLICANT:  Onrust, Rene
;  APPLICANT:  Murison, James G.
;  APPLICANT:  Kumble, Krishanand D.
;  TITLE OF INVENTION: Compositions Isolated from Skin Cells
;  TITLE OF INVENTION:  and Methods for Their Use
;  FILE REFERENCE: 11000.1011c2
;  CURRENT APPLICATION NUMBER: US/09/312,283C
;  CURRENT FILING DATE:  1999-05-14
;  NUMBER OF SEQ ID NOS: 425
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 331
;   LENGTH: 299
;   TYPE: PRT
;   ORGANISM: Mouse
US-09-312-283C-331

  Query Match             28.2%;  Score 429;  DB 4;  Length 299;
  Best Local Similarity   34.2%;  Pred. No. 2.7e-34;
  Matches  106;  Conservative   50;  Mismatches  126;  Indels   28;  Gaps    8;

Qy          2 ARRSRHRLLLLLLRYLVVALGYHKAYGFSA------PKDQQVVTAVXYQEAILACKTPKK 55
              |:  |  | | :|  |: :|        |:      |::  |  :  |        :|
Db          5 AQVERKLLCLFILAILLCSLALGSVTVHSSEPEVRIPENNPVKLSCAYS----GFSSP-- 58

Qy         56 TVXSRLEWK-KLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAP 114
                 |:|||   | :   | |   :   :::|   :   |  |:||| | | | | ||
Db         59 ----RVEWKFDQGDTTRLVCYNNKITASYEDRVTFLPTGITFKSVTREDTGTYTCMVS-- 112

Qy        115 SEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIR 174
              | | :  |  | | ||| |: |:  :|||  |    | | :::|:|  |||||||||
Db        113 EEGGNSYGEVKVKLIVLVPPSKPTVNIPSSATIGNRAVLTCSEQDGSPPSEYTWFKDGIV 172

Qy        175 LLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK-RMQVD 233
              :  ||:     :|||| :|  || | |: :|  ||||||||||  |        ||:
Db        173 MPTNPKSTRAFSNSSYVLNPTTGELVFDPLSASDTGEYSCEARNGYGTPMTSNAVRMEAV 232

Qy        234 DLNISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKA-----TTMSEN 288
              : |:  |:|||:|  ::: :   |: :|  :|:| :    :|  || |      :  ||
Db        233 ERNVGVIVAAVLVTLILLGILVFGIWFAYSRGHFDRT---KKGTSSKKVIYSQPSARSEG 289

Qy        289 DFKHTKSFII 298
              :|| | ||::
Db        290 EFKQTSSFLV 299


RESULT 9
US-09-254-465A-10
; Sequence 10, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 10
;   LENGTH: 300
;   TYPE: PRT
;   ORGANISM: Mus musculus
US-09-254-465A-10
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  Query Match             27.7%;  Score 421;  DB 4;  Length 300;
  Best Local Similarity   34.6%;  Pred. No. 1.7e-33;
  Matches  104;  Conservative   55;  Mismatches  130;  Indels   12;  Gaps    6;

Qy          4 RSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEW 63
              ::  :|| |   :: :|   |   ::|  | ||       |:|    |       |:||
Db          6 KAGRKLLFLFTSMILGSLVQGKGSVYTAQSDVQVPE----NESIKLTCTYSGFSSPRVEW 61

Qy         64 KKL-GRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLE 122
              | : | : : | |   :   : :|       |   :||| | |:| | ||   | |||
Db         62 KFVQGSTTALVCYNSQITAPYADRVTFSSSGITFSSVTRKDNGEYTCMVS--EEGGQNYG 119

Qy        123 EDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLG 182
              | :: | ||| |: |:  ||||   |    | | : :|:|  ||:|||||| :|
Db        120 EVSIHLTVLVPPSKPTISVPSSVTIGNRAVLTCSEHDGSPPSEYSWFKDGISMLTADAKK 179

Qy        183 SQS-TNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVG-YRRCPGKRMQVDDLNISGI 240
              :::  |||:|:: |:| | |: |:  |:||| |:|:|  |  |    |   :||: ||
Db        180 TRAFMNSSFTIDPKSGDLIFDPVTAFDSGEYYCQAQNGYGTAMRSEAAHMDAVELNVGGI 239

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYF---SKETSFQKSNSSSKATTMSENDFKHTKSFI 297
              :|||:|  ::: :   || :|  :|||    | |:  |    |: :| || :|| | ||:
Db        240 VAAVLVTLILLGLLIFGVWFAYSRGYFETTKKGTAPGKKVIYSQPSTRSEGEFKQTSSFL 299

Qy        298 I 298
              :
Db        300 V 300


RESULT 10
US-09-254-465A-23
; Sequence 23, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 23
;   LENGTH: 260
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-23

  Query Match             26.2%;  Score 399;  DB 4;  Length 260;
  Best Local Similarity   35.5%;  Pred. No. 2e-31;
  Matches   94;  Conservative   39;  Mismatches   96;  Indels   36;  Gaps    6;

Qy         26 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 83
              || |||:|                              |:|||   | :   | |   :   :
Db         28 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 60

Qy         84 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 143
              ::|   :   |  |:||| | | | | ||   | | :  |  | | ||| |: |:  :||
Db        122 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 181

Qy        144 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 203
              ||  |    | | :::|:|  |||||||| :  ||:     :|||| :|  || | |:
Db        182 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 241

Qy        204 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262
              :|  |||||||||||  |         ||:  : |:  |:|||:|  ::: :   |: :|
Db        242 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 301

Qy        263 RKGYFSKETSFQKSNSSSKATTMSE 287
              :|:| :     |  :|||    |:
Db        302 SRGHFDR----TKKGTSSKKVIYSQ 322


RESULT 11
US-09-254-465A-25
; Sequence 25, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 25
;   LENGTH: 263
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-25

  Query Match             26.2%;  Score 399;  DB 4;  Length 263;
  Best Local Similarity   35.5%;  Pred. No. 2.1e-31;
  Matches   94;  Conservative   39;  Mismatches   96;  Indels   36;  Gaps    6;

Qy         26 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 83
              || |||:|                              |:|||   | :   | |   :   :
Db         31 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 63

Qy         84 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 143
              ::|   :   |  |:||| | | | | ||   | | :  |  | | ||| |: |:  :||
Db         64 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 121

Qy        144 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 203
              ||  |    | | :::|:|  |||||||| :  ||:     :|||| :|  || | |:
Db        122 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 181

Qy        204 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262
              :|  |||||||||||  |         ||:  : |:  |:|||:|  ::: :   |: :|
Db        182 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 241

Qy        263 RKGYFSKETSFQKSNSSSKATTMSE 287
              :|:| :     |  :|||    |:
Db        242 SRGHFDR----TKKGTSSKKVIYSQ 262
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RESULT 12
US-09-462-270-4
; Sequence 4, Application US/09462270
; Patent No. 6358707
; GENERAL INFORMATION:
;  APPLICANT:  SmithKline Beecham Corporation
;  TITLE OF INVENTION:  Human F11 Antigen: A Cell Surface
;  TITLE OF INVENTION:  Receptor   Involved in Platelet Aggregation
;  FILE REFERENCE:  GH-70150US
;  CURRENT APPLICATION NUMBER: US/09/462,270
;  CURRENT FILING DATE:  2000-01-05
;  PRIOR APPLICATION NUMBER:  60/052,186
;  PRIOR FILING DATE:  1997-07-10
;  NUMBER OF SEQ ID NOS:  4
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 4
;   LENGTH: 205
;   TYPE: PRT
;   ORGANISM: HOMO SAPIENS
US-09-462-270-4

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  Best Local Similarity   33.5%;  Pred. No. 5.7e-19;
  Matches   70;  Conservative   30;  Mismatches   90;  Indels   19;  Gaps    5;

Qy          2 ARRSRHRLLLLLLRYLVVALGYHKAYGFSA------PKDQQVVTAVXYQEAILACKTPKK 55
              |:  |  | | :|  |: :|        |:      |::  |  :  |         :|
Db          5 AQVERKLLCLFILAILLCSLALGSVTVHSSEPEVRIPENNPVKLSCAYS----GFSSP-- 58

Qy         56 TVXSRLEWK-KLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAP 114
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Qy        115 SEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIR 174
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Db        113 EEGGNSYGEVKVKLIVLVPPSKPTVNIPSSATIGNRAVLTCSEQDGSPPSEYTWFKDGIV 172

Qy        175 LLENPRLGSQSTNSSYTMNTKTGTLQFNT 203
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Db        173 MPTNPKSTRAFSNSSYVLNPTTGELVFES 201


RESULT 13
US-09-254-465A-24
; Sequence 24, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 24
;   LENGTH: 270
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-24

  Query Match             15.2%;  Score 231;  DB 4;  Length 270;
  Best Local Similarity   28.6%;  Pred. No. 8.4e-15;
  Matches   72;  Conservative   41;  Mismatches   97;  Indels   42;  Gaps   11;

Qy         30 SAPKDQQVVTAVXYQEAILACKTPKKTVXSR---LEWKKL-----GRSVSFVYYQQT-LQ 80
              |    | |: |   :   | | |   :  ||   ::| ||      | | : :  :  :
Db          9 SVETPQDVLRASQGKSVTLPC-TYHTSTSSREGLIQWDKLLLTHTERVVIWPFSNKNYIH 67

Qy         81 GD-FKNR------AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDT---VTLEV 130
              |: :|||      ||  | :| |  :| :| | | | ||  |:    || :|   | | |
Db         68 GELYKNRVSISNNAEQSDASITIDQLTMADNGTYECSVSLMSD----LEGNTKSRVRLLV 123

Qy        131 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSY 190
              || |: | | :    : |  ::| || |||:| |:|:| :  |   | |     |
Db        124 LVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNILNQEQPLAQPASGQPVS 183

Qy        191 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCP-GKRMQVDDLNIS-------GIIA 242
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Db        184 LKNISTDT----------SGYYICTSSNEEGTQFCNITVAVRSPSMNVALYVGIAVGVVA 233

Qy        243 AVVVVALVISVC 254
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RESULT 14
US-09-254-465A-26
; Sequence 26, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 26
;   LENGTH: 273
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-26

  Query Match             15.2%;  Score 231;  DB 4;  Length 273;
  Best Local Similarity   28.6%;  Pred. No. 8.6e-15;
  Matches   72;  Conservative   41;  Mismatches   97;  Indels   42;  Gaps   11;

Qy         30 SAPKDQQVVTAVXYQEAILACKTPKKTVXSR---LEWKKL-----GRSVSFVYYQQT-LQ 80
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Db         12 SVETPQDVLRASQGKSVTLPC-TYHTSTSSREGLIQWDKLLLTHTERVVIWPFSNKNYIH 70

Qy         81 GD-FKNR------AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDT---VTLEV 130
              |: :|||      ||  | :| |  :| :| | | | ||  |:    || :|   | | |
Db         71 GELYKNRVSISNNAEQSDASITIDQLTMADNGTYECSVSLMSD----LEGNTKSRVRLLV 126

Qy        131 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSY 190
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Db        127 LVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNILNQEQPLAQPASGQPVS 186

Qy        191 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCP-GKRMQVDDLNIS-------GIIA 242
                |  | |          :| | | : |  | : |     ::   :|::       |::|
Db        187 LKNISTDT----------SGYYICTSSNEEGTQFCNITVAVRSPSMNVALYVGIAVGVVA 236

Qy        243 AVVVVALVISVC 254
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Db        237 ALIIIGIIIYCC 248


RESULT 15
US-08-597-495B-22
; Sequence 22, Application US/08597495B
; Patent No. 5712369
;  GENERAL INFORMATION:
;    APPLICANT:  Old, Lloyd J.;  Welt, Sydney; Ritter, Gerd;
;    APPLICANT:  Simpson, Richard J.; Nice, Edouard; Moritz, R. L.;
;    APPLICANT:  Catimel, B.; Ji, Hong; Burgess, Anthony W.;
;    APPLICANT:  Heath, Joan K.; White, Sara J.; Johnstone, Cameron
;    TITLE OF INVENTION:  Colon Cell And Colon Cancer Cell
;    TITLE OF INVENTION:  Associated Nucleic Acid Molecules, Protein And Peptides
;    NUMBER OF SEQUENCES:  29
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Felfe & Lynch
;      STREET:  805 Third Avenue
;      CITY:  New York City
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10022
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette, 3.5 inch, 360 kb storage
;      COMPUTER:  IBM PS/2
;      OPERATING SYSTEM:  PC-DOS
;      SOFTWARE:  Wordperfect
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/597,495B
;      FILING DATE:  02-Feb-1996
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/511,876
;      FILING DATE:  04-Aug-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Hanson, No. 5712369man D.
;      REGISTRATION NUMBER:  30,946
;      REFERENCE/DOCKET NUMBER:  LUD 5316.1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 688-9200
;      TELEFAX:  (212) 838-3884
;  INFORMATION FOR SEQ ID NO:  22:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  319 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
US-08-597-495B-22

  Query Match             15.2%;  Score 231;  DB 1;  Length 319;
  Best Local Similarity   28.6%;  Pred. No. 1.1e-14;
  Matches   72;  Conservative   41;  Mismatches   97;  Indels   42;  Gaps   11;

Qy         30 SAPKDQQVVTAVXYQEAILACKTPKKTVXSR---LEWKKL-----GRSVSFVYYQQT-LQ 80
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Db         23 SVETPQDVLRASQGKSVTLPC-TYHTSTSSREGLIQWDKLLLTHTERVVIWPFSNKNYIH 81

Qy         81 GD-FKNR------AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDT---VTLEV 130
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Db         82 GELYKNRVSISNNAEQSDASITIDQLTMADNGTYECSVSLMSD----LEGNTKSRVRLLV 137

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              || |: | | :    : |  ::| || |||:| |:|:| :  |   | |     |
Db        138 LVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNILNQEQPLAQPASGQPVS 197

Qy        191 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCP-GKRMQVDDLNIS-------GIIA 242
                |  | |          :| | | : |  | : |     ::   :|::       |::|
Db        198 LKNISTDT----------SGYYICTSSNEEGTQFCNITVAVRSPSMNVALYVGIAVGVVA 247

Qy        243 AVVVVALVISVC 254
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GenCore version 5.1.6

OM protein - protein search, using sw model

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(without alignments)
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Title: US-09-852-797-76
Perfect score: 1521
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: BLOSUM62
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Searched: 684280 seqs, 185983659 residues

Total number of hits satisfying chosen parameters: 684280

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1518	99.8	298	9	US-09-745-763-38	Sequence 38, Appl
2	1518	99.8	298	9	US-09-799-777-30	Sequence 30, Appl
3	1518	99.8	298	15	US-10-139-849-2	Sequence 2, Appli
4	1518	99.8	298	16	US-10-192-791-2	Sequence 2, Appli
5	1517	99.7	298	9	US-09-853-161-76	Sequence 76, Appl
6	1517	99.7	298	9	US-09-852-659A-76	Sequence 76, Appl
7	1517	99.7	298	10	US-09-852-797-76	Sequence 76, Appl
8	1465	96.3	312	10	US-09-909-320-64	Sequence 64, Appl
9	1465	96.3	312	10	US-09-909-088B-64	Sequence 64, Appl
10	1465	96.3	312	10	US-09-905-291A-64	Sequence 64, Appl
11	1465	96.3	312	10	US-09-953-499-9	Sequence 9, Appli
12	1465	96.3	312	10	US-09-902-853-64	Sequence 64, Appl
13	1465	96.3	312	10	US-09-907-824-64	Sequence 64, Appl
14	1465	96.3	312	10	US-09-907-841-64	Sequence 64, Appl
15	1465	96.3	312	11	US-09-904-011-64	Sequence 64, Appl
16	1465	96.3	312	11	US-09-906-742-64	Sequence 64, Appl
17	1465	96.3	312	11	US-09-906-838-64	Sequence 64, Appl
18	1465	96.3	312	11	US-09-907-613-64	Sequence 64, Appl
19	1465	96.3	312	11	US-09-907-942-64	Sequence 64, Appl
20	1465	96.3	312	11	US-09-904-859-64	Sequence 64, Appl
21	1465	96.3	312	11	US-09-909-204-64	Sequence 64, Appl
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23	1465	96.3	312	11	US-09-904-786-64	Sequence 64, Appl
24	1465	96.3	312	11	US-09-906-646-64	Sequence 64, Appl
25	1465	96.3	312	11	US-09-906-700-64	Sequence 64, Appl
26	1465	96.3	312	11	US-09-903-786-64	Sequence 64, Appl
27	1465	96.3	312	11	US-09-902-903-64	Sequence 64, Appl
28	1465	96.3	312	11	US-09-903-749A-64	Sequence 64, Appl
29	1465	96.3	312	11	US-09-904-119-64	Sequence 64, Appl
30	1465	96.3	312	11	US-09-904-956-64	Sequence 64, Appl
31	1465	96.3	312	11	US-09-902-736-64	Sequence 64, Appl
32	1465	96.3	312	11	US-09-907-794-64	Sequence 64, Appl
33	1465	96.3	312	11	US-09-903-943-64	Sequence 64, Appl
34	1465	96.3	312	11	US-09-904-462-64	Sequence 64, Appl
35	1465	96.3	312	11	US-09-907-925-64	Sequence 64, Appl
36	1465	96.3	312	11	US-09-902-692-64	Sequence 64, Appl
37	1465	96.3	312	11	US-09-903-520-64	Sequence 64, Appl
38	1465	96.3	312	11	US-09-905-056-64	Sequence 64, Appl
39	1465	96.3	312	11	US-09-909-064-64	Sequence 64, Appl
40	1465	96.3	312	11	US-09-904-553-64	Sequence 64, Appl
41	1465	96.3	312	11	US-09-905-381-64	Sequence 64, Appl
42	1465	96.3	312	11	US-09-905-088-64	Sequence 64, Appl
43	1465	96.3	312	11	US-09-907-575-64	Sequence 64, Appl
44	1465	96.3	312	11	US-09-905-075-64	Sequence 64, Appl
45	1465	96.3	312	11	US-09-902-759-64	Sequence 64, Appl

ALIGNMENTS

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RESULT 1
US-09-745-763-38
; Sequence 38, Application US/09745763
; Patent No. US20020065394A1
;  GENERAL INFORMATION:
;       APPLICANT: Jacobs, Kenneth
;                  McCoy, John M.
;                  LaVallie, Edward R.
;                  Collins-Racie, Lisa A.
;                  Evans, Cheryl
;                  Merberg, David
;                  Treacy, Maurice
;                  Spaulding, Vikki
;       TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES
;                           ENCODING THEM
;       NUMBER OF SEQUENCES: 219
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Genetics Institute, Inc.
;            STREET: 87 CambridgePark Drive
;            CITY: Cambridge
;            STATE: MA
;            COUNTRY: U.S.A.
;            ZIP: 02140
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.30
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/745,763
;            FILING DATE: 18-Jun-2000
;            CLASSIFICATION: <Unknown>
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Sprunger, Suzanne A.
;            REGISTRATION NUMBER: 41,323
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: (617) 498-8284
;            TELEFAX: (617) 876-5851
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;   INFORMATION FOR SEQ ID NO: 38:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: <Unknown>
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 38:
US-09-745-763-38

  Query Match             99.8%;  Score 1518;  DB 9;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 9.8e-136;
  Matches  296;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
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Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 2
US-09-799-777-30
; Sequence 30, Application US/09799777
; Patent No. US20020091244A1
;   GENERAL INFORMATION:
;        APPLICANT: Lal, Preeti
;                   Hillman, Jennifer L.
;                   Corley, Neil C.
;                   Guegler, Karl J.
;                   Baugh, Mariah
;                   Sather, Susan
;                   Shah, Purvi
;        TITLE OF INVENTION: HUMAN SIGNAL PEPTIDE-CONTAINING PROTEINS
;        NUMBER OF SEQUENCES: 154
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
;             STREET: 3174 PORTER DRIVE
;             CITY: PALO ALTO
;             STATE: CALIFORNIA
;             COUNTRY: USA
;             ZIP: 94304
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/799,777
;             FILING DATE: 06-Mar-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/002,485
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: BILLINGS, LUCY J.
;             REGISTRATION NUMBER: 36,749
;             REFERENCE/DOCKET NUMBER: PF-0459 US
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (650) 855-0555
;             TELEFAX: (650) 845-4166
;   INFORMATION FOR SEQ ID NO: 30:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        IMMEDIATE SOURCE:
;             LIBRARY: DUODNOT02
;             CLONE: 1704050
;        SEQUENCE DESCRIPTION: SEQ ID NO: 30 :
US-09-799-777-30

  Query Match             99.8%;  Score 1518;  DB 9;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 9.8e-136;
  Matches  296;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||| |||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 3
US-10-139-849-2
; Sequence 2, Application US/10139849
; Publication No. US20030079238A1
;   GENERAL INFORMATION:
;        APPLICANT: Cunningham, Sonia
;                   Barros, Maria Pia
;        TITLE OF INVENTION: A POLYNUCLEOTIDE ENCODING A HUMAN
;                            JUNCTIONAL ADHESION PROTEIN (JAM 2)
;        NUMBER OF SEQUENCES: 10
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Rockey, Milnamow & Katz, Ltd.
;             STREET: 180 N. Stetson Avenue, 2 Prudential Plaza,
;                     Suite 4700
;             CITY: Chicago
;             STATE: IL
;             COUNTRY: U.S.A.
;             ZIP: 60601
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/139,849
;             FILING DATE: 07-May-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/643,929
;             FILING DATE: 23-Aug-2000
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Katz, Martin L.
;             REGISTRATION NUMBER: 25,011
;        TELECOMMUNICATION INFORMATION:
```

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;             TELEPHONE: 312-616-5400
;             TELEFAX: 312-616-5460
;   INFORMATION FOR SEQ ID NO: 2:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-10-139-849-2

  Query Match             99.8%;  Score 1518;  DB 15;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 9.8e-136;
  Matches  296;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 4
US-10-192-791-2
; Sequence 2, Application US/10192791
; Publication No. US20030130166A1
; GENERAL INFORMATION:
;  APPLICANT: Texas Biotechnology Corporation
;  TITLE OF INVENTION: A Polynucleotide Encoding a Human Junctional Adhesion Protein (JA
;  FILE REFERENCE: TEX4542P0430
;  CURRENT APPLICATION NUMBER: US/10/192,791
;  CURRENT FILING DATE:  2003-12-10
;  NUMBER OF SEQ ID NOS: 10
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-192-791-2

  Query Match             99.8%;  Score 1518;  DB 16;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 9.8e-136;
  Matches  296;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||||||||||||||||||||||||||||||||||| |||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 5
US-09-853-161-76
; Sequence 76, Application US/09853161
; Patent No. US20020076756A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P3
;  CURRENT APPLICATION NUMBER: US/09/853,161
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 118
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-853-161-76

  Query Match             99.7%;  Score 1517;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-135;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 6
US-09-852-659A-76
; Sequence 76, Application US/09852659A
; Patent No. US20020077287A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P4
;  CURRENT APPLICATION NUMBER: US/09/852,659A
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 121
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;  LENGTH: 298
;  TYPE: PRT
;  ORGANISM: Homo sapiens
;  FEATURE:
;  NAME/KEY: SITE
;  LOCATION: (42)
;  OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;  FEATURE:
;  NAME/KEY: SITE
;  LOCATION: (58)
;  OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-659A-76

  Query Match          99.7%;  Score 1517;  DB 9;  Length 298;
  Best Local Similarity  100.0%;  Pred. No. 1.2e-135;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 7
US-09-852-797-76
; Sequence 76, Application US/09852797
; Patent No. US20020172994A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P2
;  CURRENT APPLICATION NUMBER: US/09/852,797
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 118
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;  LENGTH: 298
;  TYPE: PRT
;  ORGANISM: Homo sapiens
;  FEATURE:
;  NAME/KEY: SITE
;  LOCATION: (42)
;  OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;  NAME/KEY: SITE
;  LOCATION: (58)
;  OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-797-76

  Query Match          99.7%;  Score 1517;  DB 10;  Length 298;
  Best Local Similarity  100.0%;  Pred. No. 1.2e-135;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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RESULT 8
US-09-909-320-64
; Sequence 64, Application US/09909320
; Patent No. US20020132240A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,320
; CURRENT FILING DATE: 2002-01-04
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
; LENGTH: 312
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-909-320-64

Query Match 96.3%; Score 1465; DB 10; Length 312;
Best Local Similarity 99.3%; Pred. No. 1.1e-130;
Matches 286; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 9
US-09-909-088B-64
; Sequence 64, Application US/09909088B
; Patent No. US20020146709A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,088B
; CURRENT FILING DATE: 2001-07-18

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;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-909-088B-64

  Query Match             96.3%;  Score 1465;  DB 10;  Length 312;
  Best Local Similarity   99.3%;  Pred. No. 1.1e-130;
  Matches  286;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
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Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 10
US-09-905-291A-64
; Sequence 64, Application US/09905291A
; Patent No. US20020160374A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/905,291A
;  CURRENT FILING DATE:  2001-07-12
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-291A-64

  Query Match             96.3%;  Score 1465;  DB 10;  Length 312;
  Best Local Similarity   99.3%;  Pred. No. 1.1e-130;
  Matches  286;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;
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Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||||||||||||||||||||||||||||||||||| |||||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 11
US-09-953-499-9
; Sequence 9, Application US/09953499
; Publication No. US20020182206A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Fong, Sherman
; APPLICANT: Goddard, Audrey
; APPLICANT: Gurney, Austin L.
; APPLICANT: Napier, Mary A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Wood, William I.
; TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
; TITLE OF INVENTION: OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
; FILE REFERENCE: P1216R1(US)
; CURRENT APPLICATION NUMBER: US/09/953,499
; CURRENT FILING DATE: 2001-09-14
; PRIOR APPLICATION NUMBER: US/09/254,465
; PRIOR FILING DATE: 1999-03-05
; PRIOR APPLICATION NUMBER: PCT/US98/24855
; PRIOR FILING DATE: 1998-11-20
; PRIOR APPLICATION NUMBER: US 60/066,364
; PRIOR FILING DATE: 1997-11-21
; PRIOR APPLICATION NUMBER: US 60/078,936
; PRIOR FILING DATE: 1998-03-20
; PRIOR APPLICATION NUMBER: PCT/US98/19437
; PRIOR FILING DATE: 1998-09-17
; NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 9
; LENGTH: 312
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-953-499-9

Query Match 96.3%; Score 1465; DB 10; Length 312;
Best Local Similarity 99.3%; Pred. No. 1.1e-130;
Matches 286; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 12
US-09-902-853-64
; Sequence 64, Application US/09902853
; Publication No. US20020192659A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/902,853
; CURRENT FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: US/09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20

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;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-902-853-64

  Query Match             96.3%;  Score 1465;  DB 10;  Length 312;
  Best Local Similarity   99.3%;  Pred. No. 1.1e-130;
  Matches  286;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
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Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 13
US-09-907-824-64
; Sequence 64, Application US/09907824
; Publication No. US20020197671A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,824
;  CURRENT FILING DATE:  2001-07-17
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
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;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
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;  PRIOR FILING DATE: 1999-12-02
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;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-907-824-64

  Query Match             96.3%;  Score 1465;  DB 10;  Length 312;
  Best Local Similarity   99.3%;  Pred. No. 1.1e-130;
  Matches  286;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||||||||||||||||||||||||||||||||||| ||||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
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Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 14
US-09-907-841-64
; Sequence 64, Application US/09907841
; Publication No. US20020198366A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
```

```
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,841
;  CURRENT FILING DATE:  2001-11-20
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-907-841-64

  Query Match             96.3%;  Score 1465;  DB 10;  Length 312;
  Best Local Similarity   99.3%;  Pred. No. 1.1e-130;
  Matches  286;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||||||||||||||||||||||||||||||||| |||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 15
US-09-904-011-64
; Sequence 64, Application US/09904011
; Publication No. US20030003530A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/904,011
;  CURRENT FILING DATE:  2001-07-11
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
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;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-904-011-64

  Query Match             96.3%;  Score 1465;  DB 11;  Length 312;
  Best Local Similarity   99.3%;  Pred. No. 1.1e-130;
  Matches  286;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||||||||||||||||||||||||||||||||||| ||||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


Search completed: December  9, 2003, 17:22:01
Job time : 29.5157 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:09:51 ; Search time 15.0557 Seconds
(without alignments)
1903.477 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 1521
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 283308

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	429	28.2	299	2	S56749	junctional adhesio
2	201.5	13.2	365	2	JC7780	coxsackie- and ade
3	186	12.2	811	2	A41054	fasciclin II, tran
4	186	12.2	873	2	B41054	fasciclin II PI-li
5	171	11.2	6642	2	T29757	protein UNC-89 - C
6	163.5	10.7	7962	2	I38346	elastic titin - hu
7	160.5	10.6	1367	2	A41228	protein-tyrosine k
8	157	10.3	344	2	A27681	nonspecific cross-
9	157	10.3	860	2	JC5702	ErbB kinase activa
10	157	10.3	868	2	JC5701	ErbB kinase activa
11	156	10.3	1897	1	TDHULK	leukocyte antigen-
12	155.5	10.2	1328	2	T23007	hypothetical prote
13	155.5	10.2	2783	2	T34416	hypothetical prote
14	155	10.2	725	2	JE0100	neural cell adhesi
15	155	10.2	850	2	JC5700	ErbB kinase activa
16	153.5	10.1	521	2	JC1508	biliary glycoprote
17	152	10.0	773	2	T46283	hypothetical prote
18	152	10.0	5175	2	T20992	hypothetical prote
19	152	10.0	5198	2	T43290	hemicentin precurs
20	151.5	10.0	1033	2	S19247	cell adhesion prot
21	151	9.9	1092	1	JN0635	neural cell adhesi
22	151	9.9	1501	2	I58148	protein-tyrosine-p
23	151	9.9	1863	2	S46217	protein-tyrosine-p
24	151	9.9	1898	2	S46216	leukocyte antigen-
25	150.5	9.9	521	2	S34338	biliary glycoprote
26	150	9.9	1499	2	I50212	protein-tyrosine-p
27	150	9.9	1907	2	S50893	protein-tyrosine-p
28	149.5	9.8	352	2	T33433	hypothetical prote
29	148.5	9.8	519	2	A44783	ecto-ATPase precur
30	148	9.7	725	2	JE0099	neural cell adhesi
31	148	9.7	1088	1	IJXLNL	neural cell adhesi
32	148	9.7	1277	2	T30532	neural cell adhesi
33	147.5	9.7	1091	1	IJCHNL	neural cell adhesi
34	147.5	9.7	1912	2	A56178	protein-tyrosine-p
35	147.5	9.7	4162	2	T42633	connectin/titin -
36	147	9.7	417	2	JH0394	biliary glycoprote
37	147	9.7	464	2	C30127	transmembrane carc
38	147	9.7	526	1	A32164	biliary glycoprote
39	146.5	9.6	458	1	WMMSR1	biliary glycoprote
40	146.5	9.6	761	1	IJHUNG	neural cell adhesi
41	146	9.6	1051	2	A39712	kinase-like protei
42	145.5	9.6	1612	2	T30805	dutt1 protein - mo
43	145.5	9.6	1651	2	T14160	transmembrane rece
44	145	9.5	333	2	A31923	amalgam protein pr
45	145	9.5	764	2	A49448	irregular chiasm C

ALIGNMENTS

RESULT 1
S56749
junctional adhesion molecule precursor - human
N;Alternate names: F11 platelet antigen; platelet adhesion molecule PAM-1; platelet F11
C;Species: Homo sapiens (man)
C;Date: 27-Oct-1995 #sequence_revision 01-Feb-2002 #text_change 01-Feb-2002
C;Accession: A59406; S56749
R;Ozaki, H.; Ishii, K.; Horiuchi, H.; Arai, H.; Kawamoto, T.; Okawa, K.; Iwamatsu, A.;
J. Immunol. 163, 553-557, 1999
A;Title: Cutting edge: combined treatment of TNF-alpha and IFN-gamma causes redistribut
A;Reference number: A59406; MUID:99323940; PMID:10395639
A;Accession: A59406
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-299 <OZA>
A;Cross-references: GB:AAD42050; NID:g5326797; PIDN:AAD42050.1
R;Naik, U.P.; Ehrlich, Y.H.; Kornecki, E.
Biochem. J. 310, 155-162, 1995
A;Title: Mechanisms of platelet activation by a stimulatory antibody: cross-linking of
A;Reference number: S56749; MUID:95374438; PMID:7646439
A;Accession: S56749
A;Molecule type: protein
A;Residues: 28-49,'X',51-53;62-73,'E',75-103;123,'F',125-130;'FDKDXTIYLNXY';'LT',206,'X
A;Note: the order of the peptides other than the amino terminus was not determined
C;Genetics:
A;Gene: JAM
C;Keywords: glycoprotein; phosphoprotein; platelet aggregation; platelet membrane
F;1-25/Domain: signal sequence #status predicted <SIG>
F;26-299/Product: junctional adhesion molecule #status predicted <MAT>

Query Match 28.2%; Score 429; DB 2; Length 299;
Best Local Similarity 34.2%; Pred. No. 5.2e-27;
Matches 106; Conservative 50; Mismatches 126; Indels 28; Gaps 8;

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Qy          2 ARRSRHRLLLLLLRYLVVALGYHKAYGFSA------PKDQQVVTAVXYQEAILACKTPKK 55
              |:  |  | | :|  |: :|         |:      |::  |  :  |       :|
Db          5 AQVERKLLCLFILAILLCSLALGSVTVHSSEPEVRIPENNPVKLSCAYS----GFSSP-- 58

Qy         56 TVXSRLEWK-KLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAP 114
                 |:|||   | :   | |   :   :::|   :   |  |:||| | | | | ||
Db         59 ----RVEWKFDQGDTTRLVCYNNKITASYEDRVTFLPTGITFKSVTREDTGTYTCMVS-- 112

Qy        115 SEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIR 174
              | | :  |  | | ||| |: |:  :|||| |    | | :::|:|  |||||||||
Db        113 EEGGNSYGEVKVKLIVLVPPSKPTVNIPSSATIGNRAVLTCSEQDGSPPSEYTWFKDGIV 172

Qy        175 LLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK-RMQVD 233
              :  ||:     :|||| :|  || | |: :|  |||||||||||  |        ||:
Db        173 MPTNPKSTRAFSNSSYVLNPTTGELVFDPLSASDTGEYSCEARNGYGTPMTSNAVRMEAV 232

Qy        234 DLNISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKA-----TTMSEN 288
              : |:  |:|||:|  ::: :   |: :|  :|:| :    :|  || |       :  ||
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Db        233 ERNVGVIVAAVLVTLILLGILVFGIWFAYSRGHFDRT---KKGTSSKKVIYSQPSARSEG 289

Qy        289 DFKHTKSFII 298
              :|| | ||::
Db        290 EFKQTSSFLV 299


RESULT 2
JC7780
coxsackie- and adenovirus receptor - bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 02-Apr-2002 #sequence_revision 02-Apr-2002 #text_change 02-Apr-2002
C;Accession: JC7780
R;Thoelen, I.; Keyaerts, E.; Lindberg, M.; Van Ranst, M.
Biochem. Biophys. Res. Commun. 288, 805-808, 2001
A;Title: Characterization of a cDNA encoding the bovine coxsackie and adenovirus recepto
A;Reference number: JC7780
A;Contents: Liver
A;Accession: JC7780
A;Molecule type: mRNA
A;Residues: 1-365 <THO>
A;Cross-references: GB:AY033651
C;Comment: This protein serves as the primary adenoviral attachment site on bovine cells

  Query Match            13.2%;  Score 201.5;  DB 2;  Length 365;
  Best Local Similarity  24.5%;  Pred. No. 1.2e-08;
  Matches   78;  Conservative   46;  Mismatches  130;  Indels   65;  Gaps   11;

Qy         12 LLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACK---TPKKTVXSRLEW----- 63
              ||||:|::         | |    :|::     : | | ||     |:      :||
Db          3 LLLRFLLLCGVADFTRGLSITTPEQMIEKAKGETAYLPCKFTLGPEDQGPLDIEWLLSPA 62

Qy         64 --KKL--------GRSVSFVYYQQTLQGDFKNRAEMI-------DFNIRIKNVTRSDAGK 106
                :|:        |  :   |||     | | |             | :| : |:  || |
Db         63 DNQKVDQVIILYSGDKIYDDYYQ-----DLKGRVHFTSNDLKSGDASINVTNLQLSDIGT 117

Qy        107 YRCEV-SAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPE 165
              |:|:|  ||    : ::     | ||| |:   | |  |   |   :|:|: |||:
Db        118 YQCKVKKAPGVGNKKIQ-----LTVLVKPSGIRCYVDGSEEIGNDFKLKCEPKEGSLPLR 172

Qy        166 YTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRC 225
              | | |             ||   :|:     :  :      |   :| |:|  || ||  :|
Db        173 YEWQK---------LSDSQKLPTSWLPEMTSPVISVKNASAEYSGTYTCTVRNRVGSDQC 223

Qy        226 --------PGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQ--- 274
                     |  |        : | : |:|::||::  |       :|:  :  : ||
Db        224 LLRLDVVPPSNRAGTIAGAVIGTLLALVLIALIVFCCH----KKRREEKYEKEVHHDIRE 279

Qy        275 -----KSNSSSKATTMSEN 288
                   || :|:  : :  |
Db        280 DVPPPKSRTSTARSYIGSN 298


RESULT 3
A41054
fasciclin II, transmembrane splice form precursor - fruit fly (Drosophila melanogaster)
C;Species: Drosophila melanogaster
C;Date: 21-Apr-1992 #sequence_revision 21-Apr-1992 #text_change 17-Mar-2000
C;Accession: A41054
R;Grenningloh, G.; Rehm, E.J.; Goodman, C.S.
Cell 67, 45-57, 1991
A;Title: Genetic analysis of growth cone guidance in Drosophila: fasciclin II functions
A;Reference number: A41054; MUID:92005695; PMID:1913818
A;Accession: A41054
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-811 <GRE>
A;Cross-references: GB:M77165; NID:g157402; PID:g157403
C;Genetics:
A;Gene: FlyBase:Fas2
A;Cross-references: FlyBase:FBgn0000635
C;Superfamily: neural cell adhesion molecule; fibronectin type III repeat homology; immu
C;Keywords: membrane protein

  Query Match            12.2%;  Score 186;  DB 2;  Length 811;
  Best Local Similarity  24.6%;  Pred. No. 5.5e-07;
  Matches   67;  Conservative   50;  Mismatches  101;  Indels   54;  Gaps   13;

Qy         30 SAPKDQQVVTAVXYQEAILACKT---PKKTVXSRLEWKKLG---RSVSFVYYQQTLQGDF 83
              :||::|         |: :: |:    |  |:    :| : |   |: :  |  ||
Db        142 NAPENQYPTLG---QDYVVMCEVKADPNPTI----DWLRNGDPIRTTNDKYVVQT----- 189

Qy         84 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 143
                     : |:||  || | | |  :|  | |: ||  |: :|| : | : |
Db        190 --------NGLLIRNVQESDEGIYTCR-AAVIETGELLER-TIRVEVFIQPEIISLPTNL 239

Qy        144 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 203
              |: |      |  : | | || :| :|  :|       : :|   : :| :|| :  ::
Db        240 EAVEGKPFAANCTAR-GKPVPEISWIRDATQL-------NVATADRFQVNPQTGLVTISS 291

Qy        204 VSKLDTGEYSCEARNSVGYRRCPGK-----RMQVDDL-NISGIIAAVVVVALVISVCGLG 257
              ||: | | |:| |:|  |       |  | |: :| |::|     : :
Db        292 VSQDDYGTYTCLAKNRAGVVDQKTKLNVLVRPQIYELYNVTGARTKEIAI---------- 341

Qy        258 VCYAQRKGYFSKETSFQKSNSSSKATTMSEND 289
              | |  ||  :   :|::  :  : |   ::|
Db        342 TCRA--KGRPAPAITFRRWGTQEEYTNGQQDD 371


RESULT 4
B41054
fasciclin II PI-linked splice form precursor - fruit fly (Drosophila melanogaster)
C;Species: Drosophila melanogaster
C;Date: 21-Apr-1992 #sequence_revision 21-Apr-1992 #text_change 17-Mar-2000
C;Accession: B41054
R;Grenningloh, G.; Rehm, E.J.; Goodman, C.S.
Cell 67, 45-57, 1991
A;Title: Genetic analysis of growth cone guidance in Drosophila: fasciclin II functions
A;Reference number: A41054; MUID:92005695; PMID:1913818
A;Accession: B41054
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-873 <GRE>
A;Cross-references: GB:M77166
C;Genetics:
A;Gene: FlyBase:Fas2
A;Cross-references: FlyBase:FBgn0000635
C;Superfamily: neural cell adhesion molecule; fibronectin type III repeat homology; immu
C;Keywords: transmembrane protein

  Query Match            12.2%;  Score 186;  DB 2;  Length 873;
  Best Local Similarity  24.6%;  Pred. No. 6e-07;
  Matches   67;  Conservative   50;  Mismatches  101;  Indels   54;  Gaps   13;

Qy         30 SAPKDQQVVTAVXYQEAILACKT---PKKTVXSRLEWKKLG---RSVSFVYYQQTLQGDF 83
              :||::|         |: :: |:    |  |:    :| : |   |: :  |  ||
Db        142 NAPENQYPTLG---QDYVVMCEVKADPNPTI----DWLRNGDPIRTTNDKYVVQT----- 189

Qy         84 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 143
                     : |:||  || | | |  :|  | |: ||  |: :|| : | : |
Db        190 --------NGLLIRNVQESDEGIYTCR-AAVIETGELLER-TIRVEVFIQPEIISLPTNL 239

Qy        144 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 203
              |: |      |  : | | || :| :|  :|       : :|   : :| :|| :  ::
Db        240 EAVEGKPFAANCTAR-GKPVPEISWIRDATQL-------NVATADRFQVNPQTGLVTISS 291

Qy        204 VSKLDTGEYSCEARNSVGYRRCPGK-----RMQVDDL-NISGIIAAVVVVALVISVCGLG 257
              ||: | | |:| |:|  |       |  | |: :| |::|     : :
Db        292 VSQDDYGTYTCLAKNRAGVVDQKTKLNVLVRPQIYELYNVTGARTKEIAI---------- 341

Qy        258 VCYAQRKGYFSKETSFQKSNSSSKATTMSEND 289
              | |  ||  :   :|::  :  : |   ::|
Db        342 TCRA--KGRPAPAITFRRWGTQEEYTNGQQDD 371


RESULT 5
```

```
T29757
protein UNC-89 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 03-Dec-1999
C;Accession: T29757
R;Du, Z.; Le, T.T.; Wilson, R.
submitted to the EMBL Data Library, May 1997
A;Description: The sequence of C. elegans cosmid C09D1.
A;Reference number: Z20679
A;Accession: T29757
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-6642 <DUZ>
A;Cross-references: EMBL:AF003131; PIDN:AAB54132.1; GSPDB:GN00019; CESP:unc-89
A;Experimental source: strain Bristol N2; clone C09D1
C;Genetics:
A;Gene: CESP:unc-89
A;Map position: 1
A;Introns: 17/2; 108/3; 154/2; 211/2; 265/3; 326/2; 352/3; 426/2; 454/1; 500/1; 537/1; 6
/3; 5917/1; 6027/1; 6061/3; 6153/2; 6515/1; 6552/3; 6609/1

  Query Match             11.2%;  Score 171;  DB 2;  Length 6642;
  Best Local Similarity   28.1%;  Pred. No. 0.00011;
  Matches   61;  Conservative   29;  Mismatches   75;  Indels   52;  Gaps   11;

Qy         28 GFSAPKDQQVV---TAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGDFK 84
              |  ||:  :::    |    |:||| ||  |     :::| | |: |             :
Db       3823 GRGAPEFVELLRSCTVTEKQQAILKCKV-KGEPRPKIKWTKEGKEVEM---------SAR 3872

Qy         85 NRAEMID---FNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEV 141
               |||  |      :   |||::|||:|||| | :| |     |  : : :  || :   |
Db       3873 VRAEHKDDGTLTLTFDNVTQADAGEYRCE--AENEYGSAWTEGPIIVTLEGAPKIDG-EA 3929

Qy        142 P---------------SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQST 186
              |               :: | | :         | | |   |:|:|  |  : |:  :
Db       3930 PDFLQPVKPAVVTVGETAVLEGKI--------SGKPKPSVKWYKNGEELKPSDRVKIE-- 3979

Qy        187 NSSYTMNTKTGTLQFN-TVSKL-DTGEYSCEARNSVG 221
                  |   || :   | :|| |  || ||| |  |
Db       3980 ------NLDDGTQRLTVTNAKLDDMDEYRCEASNEFG 4010


RESULT 6
I38346
elastic titin - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
C;Accession: I38346
R;Labeit, S.; Kolmerer, B.
Science 270, 293-296, 1995
A;Title: Titins: giant proteins in charge of muscle ultrastructure and elasticity.
A;Reference number: A57430; MUID:96026330; PMID:7569978
A;Accession: I38346
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-7962 <RES>
A;Cross-references: EMBL:X90569; NID:g1017426; PIDN:CAA62189.1; PID:g1017427
C;Genetics:
A;Gene: GDB:TTN
A;Cross-references: GDB:127867; OMIM:188840
A;Map position: 2q31-2q31

  Query Match             10.7%;  Score 163.5;  DB 2;  Length 7962;
  Best Local Similarity   28.3%;  Pred. No. 0.00053;
  Matches   53;  Conservative   30;  Mismatches   65;  Indels   39;  Gaps    7;

Qy         45 EAILACKTPKKTVXSRLEWKKLGRSV------SFVYYQQTLQGDFKNRAEMIDFNIRIKN 98
              ::|:   |   |:   : ||| | ::      : |  ::|                : | |
Db       2666 KSIILESTYTGTLPISVTWKKDGFNITTSEKCNIVTTEKTC------------ILEILN 2712

Qy         99 VTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEV----PSSALSGTVVELR 154
              |: |||:| ||:   :| |:::         ||:   |    |    |  | |  | |:
Db       2713 STKRDAGQYSCEIE--NEAGRDV------CGALVSTLEPPYFVTELEPLEAAVGDSVSLQ 2764

Qy        155 CQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSC 214
              ||   | |    :|:|   :|   |.  :  ||:          || || |:  |:|||:|
Db       2765 CQ-VAGTPEITVSWYKGDTKLRPTPEYRTYFTNN-------VATLVFNKVNINDSGEYTC 2816

Qy        215 EARNSVG 221
              :| ||:|
Db       2817 KAENSIG 2823


RESULT 7
A41228
protein-tyrosine kinase (EC 2.7.1.112) Flk-1 precursor, endothelial cell-specific recep
C;Species: Mus musculus (house mouse)
C;Date: 19-Jun-1992 #sequence_revision 19-Jun-1992 #text_change 04-Feb-2000
C;Accession: A41228; A46065; I58365; S18832; S29991
R;Matthews, W.; Jordan, C.T.; Gavin, M.; Jenkins, N.A.; Copeland, N.G.; Lemischka, I.R.
Proc. Natl. Acad. Sci. U.S.A. 88, 9026-9030, 1991
A;Title: A receptor tyrosine kinase cDNA isolated from a population of enriched primiti
A;Reference number: A41228; MUID:92020984; PMID:1717995
A;Accession: A41228
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-1367 <MAT>
A;Cross-references: GB:X59397; NID:g50976; PIDN:CAA42040.1; PID:g50977
R;Millauer, B.; Wizigmann-Voos, S.; Schnurch, H.; Martinez, R.; Moller, N.P.; Risau, W.
Cell 72, 835-846, 1993
A;Title: High affinity VEGF binding and developmental expression suggest Flk-1 as a maj
A;Reference number: A46065; MUID:93208880; PMID:7681362
A;Accession: A46065
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-24,'T',26-782,'VL',785-916,'C',918-1367 <MIL>
A;Cross-references: GB:X70842; NID:g57923; PIDN:CAA50192.1; PID:g57924
A;Note: submitted to the EMBL Data Library, January 1993
A;Note: sequence extracted from NCBI backbone (NCBIP:128064)
R;Oelrichs, R.B.; Reid, H.H.; Bernard, O.; Ziemiecki, A.; Wilks, A.F.
Oncogene 8, 11-18, 1993
A;Title: NYK/FLK-1: a putative receptor protein tyrosine kinase isolated from E10 embry
A;Reference number: I58365; MUID:93141255; PMID:8423988
A;Accession: I58365
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-678,'D',680-1340,'RSPPV' <OEL>
A;Cross-references: GB:S53103; NID:g264004; PIDN:AAB25043.1; PID:g264005
C;Genetics:
A;Gene: FLK-1; NYK
C;Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases; protein kinase homol
C;Keywords: ATP; autophosphorylation; phosphoprotein; phosphotransferase; transmembrane
F;830-1165/Domain: protein kinase homology <KIN>
F;838-846/Region: protein kinase ATP-binding motif

  Query Match             10.6%;  Score 160.5;  DB 2;  Length 1367;
  Best Local Similarity   24.8%;  Pred. No. 0.00011;
  Matches   53;  Conservative   23;  Mismatches   75;  Indels   63;  Gaps    6;

Qy         44 QEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFN---------- 93
              ||::    | :     | | |||   : |:  ::|    ||   :   |
Db       562 QESVSLLCTADRNTFENLTWYKLGSQATSVHMGESLTPVCKNLDALWKLNGTMFSNSTND 621

Qy         94 ---IRIKNVTRSDAGKYRC--------------------EVSAPSEQGQNLEEDTVTLEV 130
                 :  :| :  | | | |                    |  ||   | |||  | |:
Db       622 ILIVAFQNASLQDQGDYVCSAQDKKTKKRHCLVKQLIILERMAPMITG-NLENQTTTI-- 678

Qy        131 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSY 190
                            | :|: |    ||| |  ||||   |:|:  :  :  | :
Db       679 ----------------GETIEVTC-PASGNPTPHITWFKDNETLVEDSGIVLRDGNRNL 720

Qy        191 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRR 224
              |:           | | | | |:|:|  | :|  |
Db       721 TI---------RRVRKEDGGLYTCQACNVLGCAR 745
```

RESULT 8
A27681
nonspecific cross-reacting antigen precursor - human
N;Alternate names: NCA; TEX/NCA
C;Species: Homo sapiens (man)
C;Date: 31-Mar-1989 #sequence_revision 16-Sep-1992 #text_change 31-Jan-2000
C;Accession: A26902; A29875; A27681; B31037; A29918; A27709; A36271; C26414; E44476; F44
R;Oikawa, S.; Kosaki, G.; Nakazato, H.
Biochem. Biophys. Res. Commun. 146, 464-469, 1987
A;Title: Molecular cloning of a gene for a member of carcinoembryonic antigen (CEA) gene
A;Reference number: A26902; MUID:87298464; PMID:3619891
A;Accession: A26902
A;Molecule type: DNA
A;Residues: 1-141 <OIK>
A;Cross-references: GB:M17082; NID:g180230; PIDN:AAA51971.1; PID:g553222
R;Thompson, J.A.; Pande, H.; Paxton, R.J.; Shively, L.; Padma, A.; Simmer, R.L.; Todd, C
Proc. Natl. Acad. Sci. U.S.A. 84, 2965-2969, 1987
A;Title: Molecular cloning of a gene belonging to the carcinoembryonic antigen gene fami
A;Reference number: A29875; MUID:87204248; PMID:3033672
A;Accession: A29875
A;Molecule type: DNA
A;Residues: 23-141 <THO>
A;Cross-references: GB:M16337
A;Note: the authors translated the codon ACT for residue 64 as Tyr
R;Tawaragi, Y.; Oikawa, S.; Matsuoka, Y.; Kosaki, G.; Nakazato, H.
Biochem. Biophys. Res. Commun. 150, 89-96, 1988
A;Title: Primary structure of nonspecific crossreacting antigen (NCA), a member of carci
A;Reference number: A27681; MUID:88106638; PMID:3337731
A;Accession: A27681
A;Molecule type: mRNA
A;Residues: 1-238,'V',240-344 <TAW>
A;Cross-references: GB:M18728; NID:g189084; PIDN:AAA59907.1; PID:g189085
R;Barnett, T.; Goebel, S.J.; Nothdurft, M.A.; Elting, J.J.
Genomics 3, 59-66, 1988
A;Title: Carcinoembryonic antigen family: characterization of cDNAs coding for NCA and C
A;Reference number: A31037; MUID:89122014; PMID:3220478
A;Accession: B31037
A;Molecule type: mRNA
A;Residues: 1-137,'L',139-344 <BAR>
A;Cross-references: GB:M29541; NID:g189103; PIDN:AAA59915.1; PID:g189104
A;Note: the authors translated the codon TTG for residue 138 as Phe
R;Neumaier, M.; Zimmermann, W.; Shively, L.; Hinoda, Y.; Riggs, A.D.; Shively, J.E.
J. Biol. Chem. 263, 3202-3207, 1988
A;Title: Characterization of a cDNA clone for the nonspecific cross-reacting antigen (NC
A;Reference number: A29918; MUID:88139389; PMID:2830274
A;Accession: A29918
A;Molecule type: mRNA
A;Residues: 1-344 <NEU>
A;Cross-references: GB:M18216; GB:J03550; NID:g178690; PIDN:AAA51739.1; PID:g178691
R;Grunert, F.; Kolbinger, F.; Schwarz, K.; Schwaibold, H.; von Kleist, S.
Biochem. Biophys. Res. Commun. 153, 1105-1115, 1988
A;Title: Protein analysis of NCA-50 shows identity to NCA cDNA deduced sequences and ind
A;Reference number: A27709; MUID:88268882; PMID:3390172
A;Accession: A27709
A;Molecule type: protein
A;Residues: 35-95;99-120;123-138;149-151,'X',153-162;166,'X',168-172,'X',174-193;231-235
R;Hefta, S.A.; Paxton, R.J.; Shively, J.E.
J. Biol. Chem. 265, 8618-8626, 1990
A;Title: Sequence and glycosylation site identity of two distinct glycoforms of nonspeci
A;Reference number: A36271; MUID:90256782; PMID:2341397
A;Accession: A36271
A;Molecule type: protein
A;Residues: 35-42;44-53;55-80;83-134;139-160;166-172;174-180;191-194,204-224;233-308;310
R;Paxton, R.J.; Mooser, G.; Pande, H.; Lee, T.D.; Shively, J.E.
Proc. Natl. Acad. Sci. U.S.A. 84, 920-924, 1987
A;Title: Sequence analysis of carcinoembryonic antigen: identification of glycosylation
A;Reference number: A26414; MUID:87147209; PMID:3469650
A;Accession: C26414
A;Molecule type: protein
A;Residues: 35-69 <PAX>
R;Khan, W.N.; Fraengsmyr, L.; Teglund, S.; Israelsson, A.; Bremer, K.; Hammarstroem, S.
Genomics 14, 384-390, 1992
A;Title: Identification of three new genes and estimation of the size of the carcinoembr
A;Reference number: A44476; MUID:93052339; PMID:1427854
A;Accession: E44476
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 35-141 <KHA>
A;Accession: F44476
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 35-137,'L',139-141 <KH2>
C;Comment: This protein appears to be processed at the carboxyl terminus and anchored t
C;Genetics:
A;Gene: GDB:NCA
A;Cross-references: GDB:120221; OMIM:163980
A;Map position: 19q13.2-19q13.2
A;Introns: 22/1
A;Note: the list of introns may be incomplete
C;Superfamily: carcinoembryonic antigen; carcinoembryonic antigen precursor amino-termi
C;Keywords: blocked carboxyl end; glycoprotein; lipoprotein; membrane protein; phosphat
F;1-138/Domain: carcinoembryonic antigen precursor amino-terminal homology <CEAN>
F;1-34/Domain: signal sequence #status predicted <SIG>
F;35-320/Product: nonspecific cross-reacting antigen #status experimental <MAT>
F;160-217/Domain: immunoglobulin homology <IMM1>
F;252-301/Domain: immunoglobulin homology <IMM2>
F;321-344/Domain: carboxyl-terminal propeptide #status predicted <CTP>
F;104,111,115,152,173,197,224,256,274,288,292/Binding site: carbohydrate (Asn) (covalen
F;309/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;320/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Gly) (in mature for

Query Match 10.3%; Score 157; DB 2; Length 344;
Best Local Similarity 28.4%; Pred. No. 4.2e-05;
Matches 48; Conservative 25; Mismatches 62; Indels 34; Gaps 8;

```
Qy         91 DFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSA--LSG 148
              :  : : :| |:||| | ||:  |:   ::   | ||| ||  |  |:   || |    |
Db        197 NMTLTLLSVKRNDAGSYECEIQNPASANRS---DPVTLNVLYGPDGPTIS-PSKANYRPG 252

Qy        149 TVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLD 208
                : | |     ||  :|:|| :|                   |    | |    ::  :
Db        253 ENLNLSCH-AASNPPAQYSWFING-----------------TFQQSTQELFIPNITVNN 293

Qy        209 TGEYSCEARNSVGYRRCPG-KRMQVDDLNISG---IIAAVVVVALVISV 253
              :| | |:| ||        |  | |  : :||   :::||  | : | |
Db        294 SGSYMCQAHNS-----ATGLNRTTVTMITVSGSAPVLSAVATVGITIGV 337
```

RESULT 9
JC5702
ErbB kinase activator alpha2a, brain and thymus - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 25-Nov-1997 #sequence_revision 25-Nov-1997 #text_change 08-Sep-2002
C;Accession: JC5702; PC4417
R;Higashiyama, S.; Horikawa, M.; Yamada, K.; Ichino, N.; Nakano, N.; Nakagawa, T.; Miya
J. Biochem. 122, 675-680, 1997
A;Title: A novel brain-derived member of the epidermal growth factor family that intera
A;Reference number: JC5700; MUID:98006324; PMID:9348101
A;Accession: JC5702
A;Status: nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-860 <HIG>
A;Cross-references: DDBJ:D89996; NID:g2605631; PIDN:BAA23345.1; PID:g2605632
A;Experimental source: PC-12 cell
A;Accession: PC4417
A;Status: nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 'F',212-213,223-860 <HI2>
A;Cross-references: DDBJ:AB001576; NID:g2605478; PIDN:BAA23348.1; PID:g2605479
A;Experimental source: PC-12 cell
C;Comment: This protein is a member of the epidermal growth factor family. It is functi
ating the differentiation of MDA-MB-453 cells.
C;Superfamily: human ErbB kinase activator alpha, brain and thymus; EGF homology; immun
C;Keywords: glycoprotein
F;274-327/Domain: Ig-like #status predicted <IGL>
F;361-397/Domain: EGF homology <EGF>

```
F;422-444/Domain: hydrophobic #status predicted <HYD>
F;163,294,467/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match            10.3%;  Score 157;  DB 2;  Length 860;
  Best Local Similarity  27.7%;  Pred. No. 0.00012;
  Matches   56;  Conservative   24;  Mismatches   86;  Indels   36;  Gaps    8;

Qy         66 LGRSVSFVYYQQTLQGD--FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEE 123
              | |:  :::: :  :    ||     :| |   ||: : : ||  |   |   : : ::
Db        204 LERNQRYIFFLEPTEQPLVFKTAFAPVDPN--GKNI-KKEVGKILCTDCATRPKLKKMKS 260

Qy        124 DTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 183
              |  :                    |    |:|:   ||| | | |||||  |       |
Db        261 QTGEV------------------GEKQSLKCEAAAGNPQPSYRWFKDGKELNR-----S 296

Qy        184 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNI-----S 238
              :     |    |   |||| |   | ||| ||| | :|     | |: |: ::      |
Db        297 RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRG-RLHVNSVSTTLSSWS 355

Qy        239 GIIAAVVVVALVISVCGLGVCY 260
              |        |    | | ||||
Db        356 GHARKCNETAKSYCVNG-GVCY 376


RESULT 10
JC5701
ErbB kinase activator alpha1, brain and thymus - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 25-Nov-1997 #sequence_revision 25-Nov-1997 #text_change 08-Sep-2002
C;Accession: JC5701; PC4411
R;Higashiyama, S.; Horikawa, M.; Yamada, K.; Ichino, N.; Nakano, N.; Nakagawa, T.; Miyag
J. Biochem. 122, 675-680, 1997
A;Title: A novel brain-derived member of the epidermal growth factor family that interac
A;Reference number: JC5700; MUID:98006324; PMID:9348101
A;Accession: JC5701
A;Molecule type: mRNA
A;Residues: 1-868 <HIG>
A;Cross-references: DDBJ:D89995; NID:g2605629; PIDN:BAA23344.1; PID:g2605630
A;Accession: PC4411
A;Molecule type: protein
A;Residues: 128-162 <HI2>
A;Experimental source: PC-12 cell
C;Comment: This protein is a member of the epidermal growth factor family. It is functio
ating the differentiation of MDA-MB-453 cells.
C;Superfamily: human ErbB kinase activator alpha, brain and thymus; EGF homology; immuno
F;361-397/Domain: EGF homology <EGF>

  Query Match            10.3%;  Score 157;  DB 2;  Length 868;
  Best Local Similarity  27.7%;  Pred. No. 0.00013;
  Matches   56;  Conservative   24;  Mismatches   86;  Indels   36;  Gaps    8;

Qy         66 LGRSVSFVYYQQTLQGD--FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEE 123
              | |:  :::: :  :    ||     :| |   ||: : : ||  |   |   : : ::
Db        204 LERNQRYIFFLEPTEQPLVFKTAFAPVDPN--GKNI-KKEVGKILCTDCATRPKLKKMKS 260

Qy        124 DTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 183
              |  :                    |    |:|:   ||| | | |||||  |       |
Db        261 QTGEV------------------GEKQSLKCEAAAGNPQPSYRWFKDGKELNR-----S 296

Qy        184 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNI-----S 238
              :     |    |   |||| |   | ||| ||| | :|     | |: |: ::      |
Db        297 RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRG-RLHVNSVSTTLSSWS 355

Qy        239 GIIAAVVVVALVISVCGLGVCY 260
              |        |    | | ||||
Db        356 GHARKCNETAKSYCVNG-GVCY 376


RESULT 11
TDHULK
leukocyte antigen-related protein precursor - human
N;Alternate names: leukocyte common antigen homolog
N;Contains: protein-tyrosine-phosphatase (EC 3.1.3.48)
C;Species: Homo sapiens (man)
C;Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 22-Jun-1999
C;Accession: S03841; JL0051
R;Streuli, M.; Krueger, N.X.; Hall, L.R.; Schlossman, S.F.; Saito, H.
J. Exp. Med. 168, 1523-1530, 1988
A;Title: A new member of the immunoglobulin superfamily that has a cytoplasmic region ho
A;Reference number: JL0051; MUID:89035978; PMID:2972792
A;Accession: S03841
A;Status: nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-1897 <STR>
A;Cross-references: EMBL:Y00815; NID:g34266; PIDN:CAA68754.1; PID:g34267
C;Genetics:
A;Gene: GDB:PTPRF; LAR
A;Cross-references: GDB:120138; OMIM:179590
A;Map position: 1p34-1p34
C;Superfamily: leukocyte antigen-related protein; fibronectin type III repeat homology;
ogy
C;Keywords: glycoprotein; phosphoprotein; phosphoric monoester hydrolase; transmembrane
F;1-16/Domain: signal sequence #status predicted <SIG>
F;17-1897/Product: leukocyte antigen-related protein #status predicted <MAT>
F;17-1250/Domain: extracellular #status predicted <EXT>
F;37-99/Domain: immunoglobulin homology <IMM1>
F;139-199/Domain: immunoglobulin homology <IMM2>
F;236-290/Domain: immunoglobulin homology <IMM3>
F;308-390/Domain: fibronectin type III repeat homology <FN3A>
F;403-489/Domain: fibronectin type III repeat homology <FN3B>
F;501-583/Domain: fibronectin type III repeat homology <FN3C>
F;596-685/Domain: fibronectin type III repeat homology <FN3D>
F;698-798/Domain: fibronectin type III repeat homology #status atypical <FN3E>
F;810-893/Domain: fibronectin type III repeat homology <FN3F>
F;905-989/Domain: fibronectin type III repeat homology <FN3G>
F;1001-1078/Domain: fibronectin type III repeat homology <FN3H>
F;1251-1274/Domain: transmembrane #status predicted <TMM>
F;1275-1897/Domain: intracellular #status predicted <INT>
F;1285-1897/Domain: leukocyte common antigen cytosolic domain homology <LAC>
F;1365-1586/Domain: protein-tyrosine-phosphatase homology <PTP1>
F;1654-1877/Domain: protein-tyrosine-phosphatase homology <PTP2>
F;44-97,146-197,243-288/Disulfide bonds: #status predicted
F;107,240,285,711,956/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;1538/Active site: Cys (phosphocysteine intermediate) #status predicted
F;1544/Binding site: substrate phosphate (Arg) #status predicted
F;1829/Active site: Cys (phosphocysteine intermediate) #status predicted
F;1835/Binding site: substrate phosphate (Arg) #status predicted

  Query Match            10.3%;  Score 156;  DB 1;  Length 1897;
  Best Local Similarity  25.8%;  Pred. No. 0.00039;
  Matches   59;  Conservative   35;  Mismatches   89;  Indels   46;  Gaps   10;

Qy         11 LLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKT---PKKTVXSRLEWKKLG 67
              |::|  :  | |  |     |:||   | :   |   |:    ||     |: | | |
Db          8 LVMLGLVAGAHGDSKPVFIKVPEDQ---TGLSGGVASFVCQATGEPK----PRITWMKKG 60

Qy         68 RSVSFVYYQQTLQGDFKNRAEMIDFN------IRIKNV-TRSDAGKYRCEVSAPSEQGQN 120
              : ||               | |:|:|:      :||: :  : |   | |  :    :
Db         61 KKVS------------SQRFEVIEFDDGAGSVLRIQPLRVQRDEAIYECTATNSLGEINT 108

Qy        121 LEEDTVTLEVLVAPAVPSCE------VPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIR 174
               : :|  |  : |  || :       |   | : |::   |    ||| || :|||| :
Db        109 SAKLSVLEEEQLPPGFPSIDMGPQLKVVEKARTATML---CA-AGGNPDPEISWFKDFLP 164

Qy        175 LLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYR 223
              :          :|::      ::| ||  :  : | |:| | | || | |
Db        165 V-------DPATSNGRIKQLRSGALQIESSEESDQGKYECVATNSAGTR 206


RESULT 12
T23007
hypothetical protein K09C8.5 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C;Accession: T23007; T23543
R;Kershaw, J.
```

```
submitted to the EMBL Data Library, November 1995
A;Reference number: Z19651
A;Accession: T23007
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-1328 <WIL>
A;Cross-references: EMBL:Z68005; PIDN:CAA91994.1; GSPDB:GN00028; CESP:K09C8.5
A;Experimental source: clone F59F3
R;Kershaw, J.
submitted to the EMBL Data Library, November 1995
A;Reference number: Z19755
A;Accession: T23543
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-1328 <WI2>
A;Cross-references: EMBL:Z68006; PIDN:CAA91999.1; GSPDB:GN00028; CESP:K09C8.5
A;Experimental source: clone K09C8
C;Genetics:
A;Gene: CESP:K09C8.5
A;Map position: X
A;Introns: 34/1; 85/3; 133/3; 182/2; 220/3; 262/2; 390/3; 442/2; 493/3; 563/2; 586/3; 61

  Query Match             10.2%;  Score 155.5;  DB 2;  Length 1328;
  Best Local Similarity   27.5%;  Pred. No. 0.00028;
  Matches   42;  Conservative   34;  Mismatches   66;  Indels   11;  Gaps    4;

Qy         69 SVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTL 128
              :::::: :| |    |::       ::|     :| |:| |   |    |   ::   :|:|
Db        382 TITWLFEKQKLTESRKHKLTKNGSVLKIFPFLNTDIGQYECVASNGEESKSHI--FSVSL 439

Qy        129 EVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNS 188
              :    | :    : ::|   |  | ||| | | | |:  |  :|||:   ||       |:
Db        440 KESEQPVIIDAPMDTNATIGQQVTLRCNAK-GFPVPDVVWLFEGIRI---PR-----RNT 490

Qy        189 SYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVG 221
                ||::     |    |:: |:| ::|:| ||||
Db        491 RYTISDNNIELTIEKVTRHDSGVFTCQAVNSVG 523


RESULT 13
T34416
hypothetical protein F12F3.2 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 29-Oct-1999
C;Accession: T34416
R;Fulton, B.; Wohldmann, P.
submitted to the EMBL Data Library, July 1998
A;Description: The sequence of C. elegans cosmid F12F3.
A;Reference number: Z21521
A;Accession: T34416
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-2783 <FUL>
A;Cross-references: EMBL:U80022; PIDN:AAC25886.1; GSPDB:GN00023; CESP:F12F3.2
A;Experimental source: strain Bristol N2; clone F12F3
C;Genetics:
A;Gene: CESP:F12F3.2
A;Map position: 5
A;Introns: 45/3; 90/3; 451/3; 509/1; 2313/3; 2341/3; 2378/3; 2414/2; 2453/3; 2474/2; 252

  Query Match             10.2%;  Score 155.5;  DB 2;  Length 2783;
  Best Local Similarity   30.4%;  Pred. No. 0.00067;
  Matches   58;  Conservative   15;  Mismatches   77;  Indels   41;  Gaps    6;

Qy         86 RAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVP-------- 137
              | |   | :|| ||||:|||||      || |     | ||         | |
Db       2606 RNEGDKFILRIANVTRADAGKYELTAINPSGQANAELELTVVQSTKTVGAKPKFNESPIS 2665

Qy        138 --SCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRL---LENPRLGSQSTNSSYTM 192
                :||   : |  :          | |||   || :|  |    |:   : |  ||||
Db       2666 VQTCEKNRAELRASF--------SGTPAPACRWFYNGNELIDGLDGYTITSSDTNSS--- 2714

Qy        193 NTKTGTLQFNTVSKLDTGEYSCEARNSVGYR----------RCPGKRMQVDDLNISGIIA 242
                    |  |:| |   ||| |  ||  |             |  |  ::| : :
Db       2715 ------LLINSVDKKHFGEYLCTIRNQNGEELANAMILSEGEC-RKHPRIDIVFVCNSFI 2767

Qy        243 AVVVVALVISV 253
              ||  |:||:
Db       2768 FSVVHVLLISI 2778


RESULT 14
JE0100
neural cell adhesion molecule 2 - African clawed frog
N;Alternate names: N-CAM 2
C;Species: Xenopus laevis (African clawed frog)
C;Date: 19-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
C;Accession: JE0100
R;Kudo, M.; Takayama, E.; Tadakuma, T.; Shiokawa, K.
Biochem. Biophys. Res. Commun. 245, 127-132, 1998
A;Title: Molecular cloning of ssd-form neural cell adhesion molecules (N-CAMs) as the m
A;Reference number: JE0099; MUID:98204770; PMID:9535795
A;Accession: JE0100
A;Molecule type: mRNA
A;Residues: 1-725 <KUD>
A;Cross-references: DDBJ:AB008163; NID:g3116228; PIDN:BAA25932.1; PID:g3116229
A;Experimental source: heart
C;Comment: This protein mediates and regulates various cell-cell interactions through b
C;Superfamily: neural cell adhesion molecule; fibronectin type III repeat homology; imm
F;413-475/Domain: immunoglobulin homology <IMM>
F;512-589/Domain: fibronectin type III repeat homology <3FR>

  Query Match             10.2%;  Score 155;  DB 2;  Length 725;
  Best Local Similarity   26.6%;  Pred. No. 0.00015;
  Matches   55;  Conservative   37;  Mismatches   99;  Indels   16;  Gaps    8;

Qy         29 FSAPKDQQV--VTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGDFKNR 86
              :: ||   |   |||   |  | |:     : | : |:   |::|    ::|| |    :
Db        300 YAKPKITYVENKTAVELDEITLTCEASGDPIPS-ITWRTAHRNIS--SEEKTLDGHIVVK 356

Qy         87 AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSAL 146
                :    : :|::  :|||:| |  | |       ::   :  ||  || :    |
Db        357 DHIRMSALTLKDIQYTDAGEYFCVASNPI----GVDMQAMYFEVQYAPKIRG-PVVVYTW 411

Qy        147 SGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSK 206
              |  | : | |   :|:   :||:|| :|| :    |  :|          :|: |  |:
Db        412 EGNPVNITC-DVLAHPSAAVSWFRDG-QLLPS----SNFSNIKIYNGPTFSSLEVNPDSE 465

Qy        207 LDTGEYSCEARNSVGYRRCPGKRMQVD 233
              | | |:| | ||:|:       :| |
Db        466 NDFGNYNCSAVNSIGHESSEFILVQAD 492


RESULT 15
JC5700
ErbB kinase activator alpha, brain and thymus - human
C;Species: Homo sapiens (man)
C;Date: 25-Nov-1997 #sequence_revision 25-Nov-1997 #text_change 08-Sep-2002
C;Accession: JC5700
R;Higashiyama, S.; Horikawa, M.; Yamada, K.; Ichino, N.; Nakano, N.; Nakagawa, T.; Miya
J. Biochem. 122, 675-680, 1997
A;Title: A novel brain-derived member of the epidermal growth factor family that intera
A;Reference number: JC5700; MUID:98006324; PMID:9348101
A;Accession: JC5700
A;Status: nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-850 <HIG>
A;Cross-references: DDBJ:AB005060; NID:g2626738; PIDN:BAA23417.1; PID:g2626739
A;Experimental source: SK-NSH cell
C;Comment: This protein is a member of the epidermal growth factor family. It is functi
ating the differentiation of MDA-MB-453 cells.
C;Superfamily: human ErbB kinase activator alpha, brain and thymus; EGF homology; immun
C;Keywords: glycoprotein
F;258-311/Domain: Ig-like #status predicted <IGL>
F;345-381/Domain: EGF homology <EGF>
F;346-381/Domain: EGF-like #status predicted <EGF2>
```

F;147,278,451/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 10.2%; Score 155; DB 2; Length 850;
Best Local Similarity 27.7%; Pred. No. 0.00018;
Matches 56; Conservative 24; Mismatches 86; Indels 36; Gaps 8;

```
Qy          66 LGRSVSFVYYQQTLQGD--FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEE 123
               | |:  :::: :  :    ||     :| |   ||: : : ||  |   |   : : ::
Db         188 LERNQRYIFFLEPTEQPLVFKTAFAPLDTN--GKNL-KKEVGKILCTDCATRPKLKKMKS 244

Qy         124 DTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 183
               |  :                    |    |:|:   ||| | | |||||  |       |
Db         245 QTGQV------------------GEKQSLKCEAAAGNPQPSYRWFKDGKELNR-----S 280

Qy         184 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNI-----S 238
               :    |    |   |||| |   | ||| ||| | :|     | |: |: ::      |
Db         281 RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRG-RLYVNSVSTTLSSWS 339

Qy         239 GIIAAVVVVALVISVCGLGVCY 260
               |        |    | | ||||
Db         340 GHARKCNETAKSYCVNG-GVCY 360
```

Search completed: December 9, 2003, 17:13:41
Job time : 17.0557 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:08:11 ; Search time 9.86411 Seconds
(without alignments)
1420.702 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 1521
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 127863

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1518	99.8	298	1	JAM2_HUMAN	P57087 homo sapien
2	429	28.2	299	1	JAM1_HUMAN	Q9y624 homo sapien
3	421	27.7	300	1	JAM1_MOUSE	O88792 mus musculu
4	415.5	27.3	298	1	JAM1_BOVIN	Q9xt56 bos taurus
5	231	15.2	319	1	A33_HUMAN	Q99795 homo sapien
6	195.5	12.9	365	1	CXAR_HUMAN	P78310 homo sapien
7	186	12.2	873	1	FAS2_DROME	P34082 drosophila
8	180	11.8	365	1	CXAR_MOUSE	P97792 mus musculu
9	171	11.2	6632	1	UN89_CAEEL	O01761 caenorhabdi
10	164	10.8	344	1	CEA6_HUMAN	P40199 homo sapien
11	160.5	10.6	1367	1	VGR2_MOUSE	P35918 mus musculu
12	159.5	10.5	837	1	NCM2_MOUSE	O35136 mus musculu
13	157	10.3	868	1	NRG2_RAT	O35569 rattus norv
14	156	10.3	756	1	NRG2_MOUSE	P56974 mus musculu
15	156	10.3	1897	1	PTPF_HUMAN	P10586 homo sapien
16	155.5	10.2	837	1	NCM2_HUMAN	O15394 homo sapien
17	155	10.2	850	1	NRG2_HUMAN	O14511 homo sapien
18	153.5	10.1	521	1	CEA1_MOUSE	P31809 mus musculu
19	153.5	10.1	1343	1	VGR2_RAT	O08775 rattus norv
20	151	9.9	1092	1	NCA2_XENLA	P36335 xenopus lae
21	148.5	9.8	519	1	ECTO_RAT	P16573 rattus norv
22	148	9.7	1088	1	NCA1_XENLA	P16170 xenopus lae
23	147.5	9.7	1091	1	NCA1_CHICK	P13590 gallus gall
24	147.5	9.7	1912	1	PTPD_HUMAN	P23468 homo sapien
25	147	9.7	526	1	CEA1_HUMAN	P13688 homo sapien
26	146.5	9.6	761	1	NCA2_HUMAN	P13592 homo sapien
27	146.5	9.6	848	1	NCA1_HUMAN	P13591 homo sapien
28	146	9.6	1051	1	PTK7_CHICK	Q91048 gallus gall
29	145	9.5	333	1	AMAL_DROME	P15364 drosophila
30	145	9.5	764	1	ICCR_DROME	Q08180 drosophila
31	145	9.5	1302	1	NRG_DROME	P20241 drosophila
32	144.5	9.5	349	1	CEA8_HUMAN	P31997 homo sapien
33	143	9.4	858	1	NCA1_RAT	P13596 rattus norv
34	142.5	9.4	265	1	CEA7_HUMAN	Q14002 homo sapien
35	140.5	9.2	344	1	NTRI_RAT	Q62718 rattus norv
36	140.5	9.2	847	1	CD22_HUMAN	P20273 homo sapien
37	140	9.2	359	1	LACH_DROME	Q24372 drosophila
38	140	9.2	853	1	NCA1_BOVIN	P31836 bos taurus
39	140	9.2	1906	1	KMLS_CHICK	P11799 gallus gall
40	140	9.2	4391	1	PGBM_HUMAN	P98160 homo sapien
41	139	9.1	725	1	NCA2_MOUSE	P13594 mus musculu
42	139	9.1	1115	1	NCA1_MOUSE	P13595 mus musculu
43	139	9.1	3707	1	PGBM_MOUSE ...	Q05793 mus musculu
44	138.5	9.1	702	1	CEA5_HUMAN	P06731 homo sapien
45	138.5	9.1	1709	1	SN_HUMAN	Q9bzz2 homo sapien

ALIGNMENTS

RESULT 1
JAM2_HUMAN
ID JAM2_HUMAN STANDARD; PRT; 298 AA.
AC P57087;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 15-SEP-2003 (Rel. 42, Last annotation update)
DE Junctional adhesion molecule 2 precursor (Vascular endothelial
DE junction-associated molecule) (VE-JAM).
GN JAM2 OR VEJAM OR C21ORF43.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Vascular endothelial cells;
RX MEDLINE=20317114; PubMed=10779521;
RA Palmeri D., van Zante A., Huang C.C., Hemmerich S., Rosen S.D.;
RT "Vascular endothelial junction-associated molecule, a novel member of
RT the immunoglobulin superfamily, is localized to intercellular
RT boundaries of endothelial cells.";
RL J. Biol. Chem. 275:19139-19145(2000).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Placenta;
RX MEDLINE=20507930; PubMed=10945976;
RA Cunningham S.A., Arrate M.P., Rodriguez J.M., Bjercke R.J.,
RA Vanderslice P., Morris A.P., Brock T.A.;
RT "A novel protein with homology to the junctional adhesion molecule:
RT Characterization of leukocyte interactions.";
RL J. Biol. Chem. 275:34750-34756(2000).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=Lung;
RX MEDLINE=22388257; PubMed=12477932;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length
RT human and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).

```
CC   -!- FUNCTION: MAY PLAY A ROLE IN THE PROCESSES OF LYMPHOCYTE HOMING TO
CC       SECONDARY LYMPHOID ORGANS.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC   -!- TISSUE SPECIFICITY: PROMINENTLY EXPRESSED ON HIGH ENDOTHELIAL
CC       VENULES BUT IS ALSO PRESENT ON THE ENDOTHELIA OF OTHER VESSELS.
CC       LOCALIZED TO THE INTERCELLULAR BOUNDARIES OF HIGH ENDOTHELIAL
CC       CELLS.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC   -!- DATABASE: NAME=PROW; NOTE=PROW 2:1-3(2001);
CC       WWW="http://www.ncbi.nlm.nih.gov/prow/guide/1652492186_g.htm".
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF255910; AAF81223.1; -.
DR   EMBL; AY016009; AAG49022.1; -.
DR   EMBL; BC017779; AAH17779.1; -.
DR   Genew; HGNC:14686; JAM2.
DR   MIM; 606870; -.
DR   GO; GO:0005887; C:integral to plasma membrane; NAS.
DR   GO; GO:0016337; P:cell-cell adhesion; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain; Glycoprotein; Transmembrane; Signal.
FT   SIGNAL        1    20       POTENTIAL.
FT   CHAIN        21   298       JUNCTIONAL ADHESION MOLECULE 2.
FT   DOMAIN       21   238       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    239   259       POTENTIAL.
FT   DOMAIN      260   298       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       32   127       IG-LIKE V-TYPE.
FT   DOMAIN      134   238       IG-LIKE C2-TYPE.
FT   DISULFID     50   109       POTENTIAL.
FT   DISULFID    155   214       POTENTIAL.
FT   CARBOHYD     98    98       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    187   187       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    236   236       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   298 AA;  33207 MW;  CA78E518E22DCAEE CRC64;

  Query Match           99.8%;  Score 1518;  DB 1;  Length 298;
  Best Local Similarity  99.3%;  Pred. No. 8.1e-121;
  Matches  296;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              |||||||||||||||||||||||||||||||||||||| |||||||||||||| ||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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RESULT 2
JAM1_HUMAN
ID   JAM1_HUMAN     STANDARD;      PRT;   299 AA.
AC   Q9Y624;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Junctional adhesion molecule 1 precursor (JAM) (Platelet adhesion
DE   molecule 1) (PAM-1) (Platelet F11 receptor).
GN   F11R OR JAM1 OR JCAM.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=99323940; PubMed=10395639;
RA   Ozaki H., Ishii K., Horiuchi H., Arai H., Kawamoto T., Okawa K.,
RA   Iwamatsu A., Kita T.;
RT   "Combined treatment of TNF-alpha and IFN-gamma causes redistribution
RT   of junctional adhesion molecule in human endothelial cells.";
RL   J. Immunol. 163:553-557(1999).
RN   [2]
RP   SEQUENCE FROM N.A.
RA   Sobocka M.B., Sobocki T., Rushbrook J.I., Banerjee P., Weiss C.,
RA   Kornecki E.;
RT   "Molecular cloning and sequencing of the cDNA of F11 receptor, a
RT   novel Ig superfamily member from human platelets.";
RL   Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A.
RA   Naik U.P., Naik M.U., DeLeon P., Spychala J.;
RT   "Cloning and characterization of PAM-1, a novel platelet adhesion
RT   molecule involved in platelet activation.";
RL   Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=21154917; PubMed=11230166;
RA   Wiemann S., Weil B., Wellenreuther R., Gassenhuber J., Glassl S.,
RA   Ansorge W., Boecher M., Bloecker H., Bauersachs S., Blum H.,
RA   Lauber J., Duesterhoeft A., Beyer A., Koehrer K., Strack N.,
RA   Mewes H.-W., Ottenwaelder B., Obermaier B., Tampe J., Heubner D.,
RA   Wambutt R., Korn B., Klein M., Poustka A.;
RT   "Towards a catalog of human genes and proteins: sequencing and
RT   analysis of 500 novel complete protein coding human cDNAs.";
RL   Genome Res. 11:422-435(2001).
CC   -!- FUNCTION: Seems to plays a role in epithelial tight junction
CC       formation. Appears early in primordial forms of cell junctions and
CC       recruits PARD3. The association of the PARD6-PARD3 complex may
CC       prevent the interaction of PARD3 with JAM1, thereby preventing
CC       tight junction assembly (By similarity). Plays a role in
CC       regulating monocyte transmigration involved in integrity of
CC       epithelial barrier. Involved in platelet activation.
CC   -!- SUBUNIT: Interacts with the first PDZ domain of PARD3. The
CC       association between PARD3 and PARD6B probably disrupts this
CC       interaction (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC   -!- TISSUE SPECIFICITY: Localized at tight junctions of both
CC       epithelial and endothelial cells.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like V-type domains.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF111713; AAD42050.1; -.
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DR   EMBL; AF207907; AAF22829.1; -.
DR   EMBL; AF172398; AAD48877.1; -.
DR   EMBL; AL136649; CAB66584.1; -.
DR   PIR; A59406; S56749.
DR   Genew; HGNC:14685; F11R.
DR   MIM; 605721; -.
DR   GO; GO:0006954; P:inflammatory response; TAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Tight junction; Immunoglobulin domain; Glycoprotein; Transmembrane;
KW   Repeat; Signal.
FT   SIGNAL        1     25       POTENTIAL.
FT   CHAIN        26    299       JUNCTIONAL ADHESION MOLECULE 1.
FT   DOMAIN       26    238       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    239    259       POTENTIAL.
FT   DOMAIN      260    299       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       27    125       IG-LIKE V-TYPE 1.
FT   DOMAIN      135    228       IG-LIKE V-TYPE 2.
FT   DISULFID     50    109       POTENTIAL.
FT   DISULFID    153    212       POTENTIAL.
FT   CARBOHYD    185    185       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   299 AA;  32583 MW;  D95DE2FEA23D2851 CRC64;

  Query Match             28.2%;  Score 429;  DB 1;  Length 299;
  Best Local Similarity   34.2%;  Pred. No. 5.4e-29;
  Matches  106;  Conservative   50;  Mismatches  126;  Indels   28;  Gaps    8;

Qy          2 ARRSRHRLLLLLLRYLVVALGYHKAYGFSA------PKDQQVVTAVXYQEAILACKTPKK 55
              |:  |  | | :|  |: :|         |:      |::  |  :  |        :|
Db          5 AQVERKLLCLFILAILLCSLALGSVTVHSSEPEVRIPENNPVKLSCAYS----GFSSP-- 58

Qy         56 TVXSRLEWK-KLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAP 114
                 |:|||   | :   | |   :  :::|   :   |  |:||| | | | | ||
Db         59 ----RVEWKFDQGDTTRLVCYNNKITASYEDRVTFLPTGITFKSVTREDTGTYTCMVS-- 112

Qy        115 SEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIR 174
              | | :  |  | | |||  |: |:  :|||| |    | | :::|:|  |||||||||
Db        113 EEGGNSYGEVKVKLIVLVPPSKPTVNIPSSATIGNRAVLTCSEQDGSPPSEYTWFKDGIV 172

Qy        175 LLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK-RMQVD 233
              :  ||:     :|||| :|  || | |: :|  ||||||||||  |         ||:
Db        173 MPTNPKSTRAFSNSSYVLNPTTGELVFDPLSASDTGEYSCEARNGYGTPMTSNAVRMEAV 232

Qy        234 DLNISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKA-----TTMSEN 288
              : |:  |:|||:|  ::: :   |: :|  :|:| :    :|  || |      :  ||
Db        233 ERNVGVIVAAVLVTLILLGILVFGIWFAYSRGHFDRT---KKGTSSKKVIYSQPSARSEG 289

Qy        289 DFKHTKSFII 298
              :|| | ||::
Db        290 EFKQTSSFLV 299


RESULT 3
JAM1_MOUSE
ID   JAM1_MOUSE     STANDARD;      PRT;   300 AA.
AC   O88792;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update).
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Junctional adhesion molecule 1 precursor (JAM).
GN   F11R OR JAM1 OR JCAM1 OR JCAM.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98327120; PubMed=9660867;
RA   Martin-Padura I., Lostaglio S., Schneemann M., Williams L., Romano M.,
RA   Fruscella P., Panzeri C., Stoppacciaro A., Ruco L., Villa A.,
RA   Simmons D., Dejana E.;
RT   "Junctional adhesion molecule, a novel member of the immunoglobulin
RT   superfamily that distributes at intercellular junctions and modulates
RT   monocyte transmigration.";
RL   J. Cell Biol. 142:117-127(1998).
RN   [2]
RP   INTERACTION WITH PARD3.
RX   PubMed=11447115;
RA   Ebnet K., Suzuki A., Horikoshi Y., Hirose T.,
RA   Meyer zu Brickwedde M.-K., Ohno S., Vestweber D.;
RT   "The cell polarity protein ASIP/PAR-3 directly associates with
RT   junctional adhesion molecule (JAM).";
RL   EMBO J. 20:3738-3748(2001).
RN   [3]
RP   X-RAY CRYSTALLOGRAPHY (2.5 ANGSTROMS) OF 212-238.
RX   PubMed=11500366;
RA   Kostrewa D., Brockhaus M., D'Arcy A., Dale G.E., Nelboeck P.,
RA   Schmid G., Mueller F., Bazzoni G., Dejana E., Bartfai T.,
RA   Winkler F.K., Hennig M.;
RT   "X-ray structure of junctional adhesion molecule: structural basis for
RT   homophilic adhesion via a novel dimerization motif.";
RL   EMBO J. 20:4391-4398(2001).
CC   -!- FUNCTION: Seems to plays a role in epithelial tight junction
CC       formation. Appears early in primordial forms of cell junctions and
CC       recruits PARD3. The association of the PARD6-PARD3 complex may
CC       prevent the interaction of PARD3 with JAM1, thereby preventing
CC       tight junction assembly. Plays a role in regulating monocyte
CC       transmigration involved in integrity of epithelial barrier.
CC       Involved in platelet activation.
CC   -!- SUBUNIT: Interacts with the first PDZ domain of PARD3. The
CC       association between PARD3 and PARD6B probably disrupts this
CC       interaction.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC       Localized at tight junctions of both epithelial and endothelial
CC       cells.
CC   -!- TISSUE SPECIFICITY: Localized at tight junctions of both
CC       epithelial and endothelial cells.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like V-type domains.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U89915; AAC32982.1; -.
DR   PDB; 1F97; 22-AUG-01.
DR   MGD; MGI:1321398; F11r.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Tight junction; Immunoglobulin domain; Glycoprotein; Transmembrane;
KW   Repeat; Signal; 3D-structure.
FT   SIGNAL        1     26       POTENTIAL.
FT   CHAIN        27    300       JUNCTIONAL ADHESION MOLECULE 1.
FT   DOMAIN       27    238       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    239    259       POTENTIAL.
FT   DOMAIN      260    299       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       28    122       IG-LIKE V-TYPE 1.
FT   DOMAIN      134    230       IG-LIKE V-TYPE 2.
FT   DISULFID     49    108       POTENTIAL.
FT   DISULFID    152    212       POTENTIAL.
FT   CARBOHYD     42     42       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    185    185       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   300 AA;  32368 MW;  391F3E48FF3B97EC CRC64;
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  Query Match             27.7%;  Score 421;  DB 1;  Length 300;
  Best Local Similarity   34.6%;  Pred. No. 2.6e-28;
  Matches  104;  Conservative   55;  Mismatches  130;  Indels   12;  Gaps    6;

Qy          4 RSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEW 63
              ::  :|| |     :: :|   |   ::|  | ||          |:|     |        |:||
Db          6 KAGRKLLFLFTSMILGSLVQGKGSVYTAQSDVQVPE----NESIKLTCTYSGFSSPRVEW 61

Qy         64 KKL-GRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLE 122
              | : | : : | |    :   : :|       |   :||| | |:| | ||   | |||
Db         62 KFVQGSTTALVCYNSQITAPYADRVTFSSSGITFSSVTRKDNGEYTCMVS--EEGGQNYG 119

Qy        123 EDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLG 182
              | :: | ||| |: |:  ||||   |     | | : :|:|  ||:|||||| :|
Db        120 EVSIHLTVLVPPSKPTISVPSSVTIGNRAVLTCSEHDGSPPSEYSWFKDGISMLTADAKK 179

Qy        183 SQS-TNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVG-YRRCPGKRMQVDDLNISGI 240
              :::  |||:|:: |:| | |: |:  |:||| |:|:|  |   |      |   :||: ||
Db        180 TRAFMNSSFTIDPKSGDLIFDPVTAFDSGEYYCQAQNGYGTAMRSEAAHMDAVELNVGGI 239

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYF---SKETSFQKSNSSSKATTMSENDFKHTKSFI 297
              :|||:|  ::: :   || :|  :|||    | |:  |    |: :| || :|| | ||:
Db        240 VAAVLVTLILLGLLIFGVWFAYSRGYFETTKKGTAPGKKVIYSQPSTRSEGEFKQTSSFL 299

Qy        298 I 298
              :
Db        300 V 300


RESULT 4
JAM1_BOVIN
ID   JAM1_BOVIN     STANDARD;      PRT;   298 AA.
AC   Q9XT56;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Junctional adhesion molecule 1 precursor (JAM).
GN   F11R OR JAM1.
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=99323940; PubMed=10395639;
RA   Ozaki H., Ishii K., Horiuchi H., Arai H., Kawamoto T., Okawa K.,
RA   Iwamatsu A., Kita T.;
RT   "Combined treatment of TNF-alpha and IFN-gamma causes redistribution
RT   of junctional adhesion molecule in human endothelial cells.";
RL   J. Immunol. 163:553-557(1999).
CC   -!- FUNCTION: Seems to plays a role in epithelial tight junction
CC       formation. Appears early in primordial forms of cell junctions and
CC       recruits PARD3. The association of the PARD6-PARD3 complex may
CC       prevent the interaction of PARD3 with JAM1, thereby preventing
CC       tight junction assembly (By similarity). Plays a role in
CC       regulating monocyte transmigration involved in integrity of
CC       epithelial barrier. Involved in platelet activation.
CC   -!- SUBUNIT: Interacts with the first PDZ domain of PARD3. The
CC       association between PARD3 and PARD6B probably disrupts this
CC       interaction (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC   -!- TISSUE SPECIFICITY: Localized at tight junctions of both
CC       epithelial and endothelial cells.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like V-type domains.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF111714; AAD42051.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Tight junction; Immunoglobulin domain; Glycoprotein; Transmembrane;
KW   Repeat; Signal.
FT   SIGNAL        1     24       POTENTIAL.
FT   CHAIN        25    298       JUNCTIONAL ADHESION MOLECULE 1.
FT   DOMAIN       25    237       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    238    258       POTENTIAL.
FT   DOMAIN      259    298       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       28    124       IG-LIKE V-TYPE 1.
FT   DOMAIN      134    227       IG-LIKE V-TYPE 2.
FT   DISULFID     49    108       POTENTIAL.
FT   DISULFID    152    211       POTENTIAL.
FT   CARBOHYD    184    184       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   298 AA;  32456 MW;  714FE1C1714769A2 CRC64;

  Query Match             27.3%;  Score 415.5;  DB 1;  Length 298;
  Best Local Similarity   35.1%;  Pred. No. 7.4e-28;
  Matches  107;  Conservative   47;  Mismatches  118;  Indels   33;  Gaps   10;

Qy          9 LLL---LLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILAC-----KTPKKTVXSR 60
              |||   ::|  | :  |  : |       : ||       | |:|      :|      |
Db         12 LLLFTSMILCSLALGRGAVQTY-------EPVVRVPENNPAKLSCSYSGFSSP------R 58

Qy         61 LEWK-KLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQ 119
              :|||   |     | |   :   ::||    |  |   :||| | | | | ||   | |
Db         59 VEWKFTHGDIRGLVCYNNKITASYENRVTFSDTGITFHSVTRKDTGMYTCMVS--DEGGN 116

Qy        120 NLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENP 179
              | || | ||| |: |:  ||||   ||   | | :::|:|  || |||||: :   |
Db        117 TYGEVTVQLIVLVPPSKPTINVPSSVTIGTRAVLTCSERDGSPPSEYKWFKDGVEMPLEP 176

Qy        180 RLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK----RMQVDDL 235
              :     :|||||:| ||| | |: ||  |||:::|:|:|  ||   | |     |   :|
Db        177 KSNRAFSNSSYTLNQKTGELIFDPVSASDTGDFTCQAQN--GY-ASPVKSDTVHMDAVEL 233

Qy        236 NISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKETSFQKSNSSSKATTMSENDFKHT 293
              |: ||:||| |  :::     |: :|  :|||  :|: :  |    |:    |: :|: |
Db        234 NVGGIVAAVFVTLILLGALIFGIWFAYSRGYFDRAKKGTSNKKVIYSQPNARSDGEFRQT 293

Qy        294 KSFII 298
              ||::
Db        294 SSFLV 298


RESULT 5
A33_HUMAN
ID   A33_HUMAN      STANDARD;      PRT;   319 AA.
AC   Q99795;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Cell surface A33 antigen precursor (Glycoprotein A33).
GN   GPA33.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RC   TISSUE=Colon carcinoma;
RX   MEDLINE=97165045; PubMed=9012807;
RA   Heath J.K., White S.J., Johnstone C.N., Catimel B., Simpson R.J.,
RA   Moritz R.L., Tu G.-F., Ji H., Whitehead R.H., Groenen L.C.,
RA   Scott A.M., Ritter G., Cohen L., Welt S., Old L.J., Nice E.C.,
RA   Burgess A.W.;
```

```
RT   "The human A33 antigen is a transmembrane glycoprotein and a novel
RT   member of the immunoglobulin superfamily.";
RL   Proc. Natl. Acad. Sci. U.S.A. 94:469-474(1997).
RN   [2]
RP   POST-TRANSLATIONAL MODIFICATIONS.
RX   MEDLINE=97396159; PubMed=9245713;
RA   Ritter G., Cohen L.S., Nice E.C., Catimel B., Burgess A.W.,
RA   Moritz R.L., Ji H., Heath J.K., White S.J., Welt S., Old L.J.,
RA   Simpson R.J.;
RT   "Characterization of posttranslational modifications of human A33
RT   antigen, a novel palmitoylated surface glycoprotein of human
RT   gastrointestinal epithelium.";
RL   Biochem. Biophys. Res. Commun. 236:682-686(1997).
CC   -!- FUNCTION: MAY PLAY A ROLE IN CELL-CELL RECOGNITION AND SIGNALING.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- TISSUE SPECIFICITY: EXPRESSED IN NORMAL GASTROINTESTINAL
CC       EPITHELIUM AND IN 95% OF COLON CANCERS.
CC   -!- PTM: N-GLYCOSYLATED, CONTAINS APPROXIMATELY 8 KDA OF N-LINKED
CC       CARBOHYDRATE.
CC   -!- PTM: PALMITOYLATED.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U79725; AAC50957.1; -.
DR   Genew; HGNC:4445; GPA33.
DR   MIM; 602171; -.
DR   GO; GO:0005888; C:proteoglycan integral to plasma membrane; TAS.
DR   GO; GO:0004872; F:receptor activity; TAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain; Lipoprotein; Palmitate; Glycoprotein;
KW   Transmembrane; Signal; Antigen.
FT   SIGNAL        1     21
FT   CHAIN        22    319       CELL SURFACE A33 ANTIGEN.
FT   DOMAIN       22    235       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    236    256       POTENTIAL.
FT   DOMAIN      257    319       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       22    134       IG-LIKE V-TYPE.
FT   DOMAIN      140    227       IG-LIKE C2-TYPE.
FT   DOMAIN      258    261       POLY-CYS.
FT   DISULFID     43    117       POTENTIAL.
FT   DISULFID    146    222       POTENTIAL.
FT   DISULFID    162    211       POTENTIAL.
FT   CARBOHYD    112    112       N-LINKED (GLCNAC. . .).
FT   CARBOHYD    200    200       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    223    223       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   319 AA;  35632 MW;  9BFC7AAF45C2408E CRC64;

  Query Match           15.2%;  Score 231;  DB 1;  Length 319;
  Best Local Similarity  28.6%;  Pred. No. 2.9e-12;
  Matches   72;  Conservative   41;  Mismatches   97;  Indels   42;  Gaps   11;

Qy         30 SAPKDQQVVTAVXYQEAILACKTPKKTVXSR---LEWKKL-----GRSVSFVYYQQT-LQ 80
              |     | |: |   :    | | |   :  ||   ::| ||       | | : :  :  :
Db         23 SVETPQDVLRASQGKSVTLPC-TYHTSTSSREGLIQWDKLLLTHTERVVIWPFSNKNYIH 81

Qy         81 GD-FKNR------AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDT---VTLEV 130
              |: :|||      ||  | :| |  :| :| | | | ||  |:    || :|   | | |
Db         82 GELYKNRVSISNNAEQSDASITIDQLTMADNGTYECSVSLMSD----LEGNTKSRVRLLV 137

Qy        131 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSY 190
              || |: | | :    : |  ::| || |||:| |:|:| :  |   | |     |
Db        138 LVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNILNQEQPLAQPASGQPVS 197

Qy        191 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCP-GKRMQVDDLNIS-------GIIA 242
                | | |          :| | | : |  | : |     ::   :|::       |::|
Db        198 LKNISTDT----------SGYYICTSSNEEGTQFCNITVAVRSPSMNVALYVGIAVGVVA 247

Qy        243 AVVVVALVISVC 254
              |:::: ::|  |
Db        248 ALIIIGIIIYCC 259


RESULT 6
CXAR_HUMAN
ID   CXAR_HUMAN     STANDARD;      PRT;   365 AA.
AC   P78310; O00694;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Coxsackievirus and adenovirus receptor precursor (Coxsackievirus B-
DE   adenovirus receptor) (hCAR) (CVB3 binding protein).
GN   CXADR OR CAR.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97190109; PubMed=9036860;
RA   Bergelson J.M., Cunningham J.A., Droguett G., Kurt-Jones E.,
RA   Krithivas A., Hong J.S., Horwitz M.S., Crowell R.L., Finberg R.W.;
RT   "Isolation of a common receptor for Coxsackie B viruses and
RT   adenoviruses 2 and 5.";
RL   Science 275:1320-1323(1997).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97250541; PubMed=9096397;
RA   Tomko R.P., Xu R., Philipson L.;
RT   "HCAR and MCAR: the human and mouse cellular receptors for subgroup C
RT   adenoviruses and group B coxsackieviruses.";
RL   Proc. Natl. Acad. Sci. U.S.A. 94:3352-3356(1997).
RN   [3]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=20008750; PubMed=10543405;
RA   Bowles K.R., Gibson J., Wu J., Shaffer L.G., Towbin J.A.,
RA   Bowles N.E.;
RT   "Genomic organization and chromosomal localization of the human
RT   Coxsackievirus B-adenovirus receptor gene.";
RL   Hum. Genet. 105:354-359(1999).
RN   [4]
RP   SEQUENCE FROM N.A.
RA   Anderson C.W., Kieleczawa J., Dunn J.J., Freimuth P.;
RT   "Sequence and expression of CXADR, the human gene for the
RT   coxsackievirus and adenovirus receptor.";
RL   Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
RN   [5]
RP   SEQUENCE FROM N.A.
RA   Andersson B., Tomko R., Andersson K., Darban H., Oncu D., Mizra M.,
RA   Sollerbrant K., Sonnhammer E., Philipson L.;
RT   "Putative regulatory domains in the human and mouse CAR genes.";
RL   Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
RN   [6]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Cervix;
RX   MEDLINE=22388257; PubMed=12477932;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
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RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- FUNCTION: SERVES AS A RECEPTOR FOR GROUP B COXSACKIEVIRUSES AND
CC       SUBGROUP C OF ADENOVIRUSES (AD2 AND AD5).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like C2-type domains.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; Y07593; CAA68868.1; -.
DR   EMBL; U90716; AAC51234.1; -.
DR   EMBL; AF169366; AAF05908.1; -.
DR   EMBL; AF169360; AAF05908.1; JOINED.
DR   EMBL; AF169361; AAF05908.1; JOINED.
DR   EMBL; AF169362; AAF05908.1; JOINED.
DR   EMBL; AF169363; AAF05908.1; JOINED.
DR   EMBL; AF169364; AAF05908.1; JOINED.
DR   EMBL; AF169365; AAF05908.1; JOINED.
DR   EMBL; AF200465; AAF24344.1; -.
DR   EMBL; AF242865; AAG01088.1; -.
DR   EMBL; AF242862; AAG01088.1; JOINED.
DR   EMBL; AF242864; AAG01088.1; JOINED.
DR   EMBL; BC003684; AAH03684.1; -.
DR   EMBL; BC010536; AAH10536.1; -.
DR   PDB; 1EAJ; 13-JUL-01.
DR   PDB; 1F5W; 08-NOV-00.
DR   PDB; 1KAC; 24-NOV-99.
DR   Genew; HGNC:2559; CXADR.
DR   MIM; 602621; -.
DR   GO; GO:0005887; C:integral to plasma membrane; TAS.
DR   GO; GO:0004872; F:receptor activity; TAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain; Receptor; Transmembrane; Glycoprotein; Signal;
KW   Repeat; 3D-structure.
FT   SIGNAL        1     19       POTENTIAL.
FT   CHAIN        20    365       COXSACKIEVIRUS AND ADENOVIRUS RECEPTOR.
FT   DOMAIN       20    237       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    238    258       POTENTIAL.
FT   DOMAIN      259    365       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       20    134       IG-LIKE C2-TYPE 1.
FT   DOMAIN      141    228       IG-LIKE C2-TYPE 2.
FT   DISULFID     41    120       BY SIMILARITY.
FT   DISULFID    162    212       BY SIMILARITY.
FT   CARBOHYD    106    106       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    201    201       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   365 AA;  40029 MW;  AB01C6346CB7FE64 CRC64;

  Query Match             12.9%;  Score 195.5;  DB 1;  Length 365;
  Best Local Similarity   23.3%;  Pred. No. 3.4e-09;
  Matches   67;  Conservative   57;  Mismatches  123;  Indels   41;  Gaps    9;

Qy         10 LLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACK---TPKKTVXSRLEW--- 63
               |||     |   : : ::   : |  ::::     : | | ||   :|:      :||
Db          3 LLLCFVLLCGVVDFARSLSITTP--EEMIEKAKGETAYLPCKFTLSPEDQGPLDIEWLIS 60

Qy         64 ----KKLGRSVSFVYYQQTLQGDF----------KNRAEMIDFNIRIKNVTRSDAGKYR 108
                  :|: : |  :|    :  |:            |  :  | :| : |:  || | |:
Db         61 PADNQKVDQ-VIILYSGDKIYDDYYPDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQ 119

Qy        109 CEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTW 168
                |:|    ::   :   : | ||| |:   | |  |   |:  :::|: |||:   :| |
Db        120 CKV----KKAPGVANKKIHLVVLVKPSGARCYVDGSEEIGSDFKIKCEPKEGSLPLQYEW 175

Qy        169 FKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK 228
                |              ||   :|:     :  :      |   :| |||  || ||  :|  :
Db        176 QK---------LSDSQKMPTSWLAEMTSSVISVKNASSEYSGTYSCTVRNRVGSDQCLLR 226

Qy        229 RMQVDDLNISGIIA-AVVVVALVISVCGLGVCYAQRKGYFSKETSFQK 275
                |   | :|:|| |::   | ::: || :   ::|    :|  ::|
Db        227 LNVVPPSNKAGLIAGAIIGTLLALALIGLIIFCCRKK---RREEKYEK 271


RESULT 7
FAS2_DROME
ID   FAS2_DROME     STANDARD;      PRT;   873 AA.
AC   P34082; P34083; Q9W4M6;
DT   01-FEB-1994 (Rel. 28, Created)
DT   01-FEB-1994 (Rel. 28, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Fasciclin II precursor (FAS II).
GN   FAS2 OR EG:EG0007.3 OR CG3665.
OS   Drosophila melanogaster (Fruit fly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC   Ephydroidea; Drosophilidae; Drosophila.
OX   NCBI_TaxID=7227;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS 1 AND 2), FUNCTION, SUBCELLULAR LOCATION,
RP   AND TISSUE SPECIFICITY.
RC   STRAIN=Canton-S;
RX   MEDLINE=92005695; PubMed=1913818;
RA   Grenningloh G., Rehm E.J., Goodman C.S.;
RT   "Genetic analysis of growth cone guidance in Drosophila: fasciclin II
RT   functions as a neuronal recognition molecule.";
RL   Cell 67:45-57(1991).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Berkeley;
RX   MEDLINE=20196006; PubMed=10731132;
RA   Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA   Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA   George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA   Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA   Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA   Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA   Abril J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,
RA   Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA   Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA   Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
RA   Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA   Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA   de Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA   Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA   Durbin K.J., Evangelista C.C., Ferraz C., Ferriera S., Fleischmann W.,
RA   Fosler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA   Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA   Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA   Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,
RA   Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,
RA   Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA   Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,
RA   Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,
RA   Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA   Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA   Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
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RA   Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
RA   Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
RA   Shue B.C., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T.,
RA   Spier E., Spradling A.C., Stapleton M., Strong R., Sun E.,
RA   Svirskas R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
RA   Wang Z.-Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,
RA   Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA   Ye J., Yeh R.-F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zheng L.,
RA   Zheng X.H., Zhong F.N., Zhong W., Zhou X., Zhu S., Zhu X., Smith H.O.,
RA   Gibbs R.A., Myers E.W., Rubin G.M., Venter J.C.;
RT   "The genome sequence of Drosophila melanogaster.";
RL   Science 287:2185-2195(2000).
RN   [3]
RP   REVISIONS, AND ALTERNATIVE SPLICING.
RC   STRAIN=Berkeley;
RX   MEDLINE=22426069; PubMed=12537572;
RA   Misra S., Crosby M.A., Mungall C.J., Matthews B.B., Campbell K.S.,
RA   Hradecky P., Huang Y., Kaminker J.S., Millburn G.H., Prochnik S.E.,
RA   Smith C.D., Tupy J.L., Whitfield E.J., Bayraktaroglu L., Berman B.P.,
RA   Bettencourt B.R., Celniker S.E., de Grey A.D.N.J., Drysdale R.A.,
RA   Harris N.L., Richter J., Russo S., Schroeder A.J., Shu S.Q.,
RA   Stapleton M., Yamada C., Ashburner M., Gelbart W.M., Rubin G.M.,
RA   Lewis S.E.;
RT   "Annotation of the Drosophila melanogaster euchromatic genome: a
RT   systematic review.";
RL   Genome Biol. 3:RESEARCH0083.1-RESEARCH0083.22(2002).
RN   [4]
RP   SEQUENCE OF 22-873 FROM N.A.
RC   STRAIN=Oregon-R;
RX   MEDLINE=20196011; PubMed=10731137;
RA   Benos P.V., Gatt M.K., Ashburner M., Murphy L., Harris D.,
RA   Barrell B.G., Ferraz C., Vidal S., Brun C., Demailles J., Cadieu E.,
RA   Dreano S., Gloux S., Lelaure V., Mottier S., Galibert F., Borkova D.,
RA   Minana B., Kafatos F.C., Louis C., Siden-Kiamos I., Bolshakov S.,
RA   Papagiannakis G., Spanos L., Cox S., Madueno E., de Pablos B.,
RA   Modolell J., Peter A., Schoettler P., Werner M., Mourkioti F.,
RA   Beinert N., Dowe G., Schaefer U., Jaeckle H., Bucheton A.,
RA   Callister D.M., Campbell L.A., Darlamitsou A., Henderson N.S.,
RA   McMillan P.J., Salles C., Tait E.A., Valenti P., Saunders R.D.C.,
RA   Glover D.M.;
RT   "From sequence to chromosome: the tip of the X chromosome of D.
RT   melanogaster.";
RL   Science 287:2220-2222(2000).
CC   -!- FUNCTION: Neuronal recognition molecule for the MP1 axon pathway,
CC       pathway recognition for axons during the development of nerve
CC       fascicles.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein (isoform 1);
CC       attached to the membrane by a GPI-anchor (isoform 2).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=3;
CC         Comment=Experimental confirmation may be lacking for some
CC         isoforms;
CC       Name=1; Synonyms=A, Membrane-linked;
CC         IsoId=P34082-1; Sequence=Displayed;
CC       Name=2; Synonyms=C, Phosphatidylinositol-linked;
CC         IsoId=P34082-2; Sequence=VSP_002508, VSP_002509;
CC       Name=3; Synonyms=B;
CC         IsoId=P34082-3; Sequence=VSP_002506, VSP_002507;
CC   -!- TISSUE SPECIFICITY: In embryos, both isoforms are initially
CC       expressed on the surface of the axons in the MP1 pathway and later
CC       on several other longitudinal axon fascicles.
CC   -!- SIMILARITY: Contains 5 immunoglobulin-like C2-type domains.
CC   -!- SIMILARITY: Contains 2 fibronectin type III domains.
CC   ---------------------------------------------------------------------
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CC   ---------------------------------------------------------------------
DR   EMBL; M77165; AAA28527.1; -.
DR   EMBL; M77166; AAA28528.1; -.
DR   EMBL; AL033125; CAA21825.1; -.
DR   EMBL; AE003430; AAF45925.2; -.
DR   EMBL; AE003430; AAN09119.1; -.
DR   EMBL; AL033125; CAA21826.1; -.
DR   PIR; A41054; A41054.
DR   FlyBase; FBgn0000635; Fas2.
DR   GO; GO:0005886; C:plasma membrane; IDA.
DR   GO; GO:0007156; P:homophilic cell adhesion; IDA.
DR   GO; GO:0007611; P:learning and/or memory; IMP.
DR   GO; GO:0016319; P:mushroom body development; IMP.
DR   GO; GO:0008038; P:neuronal cell recognition; IDA.
DR   GO; GO:0045473; P:response to ethanol (sensu Insecta); NAS.
DR   InterPro; IPR003961; FN_III.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00041; fn3; 2.
DR   Pfam; PF00047; ig; 5.
DR   SMART; SM00060; FN3; 2.
DR   SMART; SM00408; IGc2; 3.
DR   PROSITE; PS50835; IG_LIKE; 5.
KW   Cell adhesion; Glycoprotein; Repeat; Alternative splicing;
KW   Immunoglobulin domain; Transmembrane; GPI-anchor; Signal;
KW   Neurogenesis.
FT   SIGNAL        1     28       POTENTIAL.
FT   CHAIN        29    873       FASCICLIN II.
FT   DOMAIN       29    751       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    752    769       POTENTIAL.
FT   DOMAIN      770    873       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       31    131       IG-LIKE C2-TYPE 1.
FT   DOMAIN      138    223       IG-LIKE C2-TYPE 2.
FT   DOMAIN      230    318       IG-LIKE C2-TYPE 3.
FT   DOMAIN      323    423       IG-LIKE C2-TYPE 4.
FT   DOMAIN      428    520       IG-LIKE C2-TYPE 5.
FT   DOMAIN      544    619       FIBRONECTIN TYPE-III 1.
FT   DOMAIN      648    705       FIBRONECTIN TYPE-III 2.
FT   DISULFID     54    116       POTENTIAL.
FT   DISULFID    159    207       POTENTIAL.
FT   DISULFID    251    302       POTENTIAL.
FT   DISULFID    343    407       POTENTIAL.
FT   DISULFID    451    504       POTENTIAL.
FT   CARBOHYD     74     74       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    250    250       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    330    330       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    448    448       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    458    458       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    576    576       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARSPLIC    737    773       GIDVIQVAERQVFSSAAIVGIAIGGVLLLLFVVDLLC ->
FT                                DNPHPSTSGAAPLAQLLVIFTALPTMLLILPPTTHTA (in
FT                                isoform 3).
FT                                /FTId=VSP_002506.
FT   VARSPLIC    774    873       Missing (in isoform 3).
FT                                /FTId=VSP_002507.
FT   VARSPLIC    738    811       IDVIQVAERQVFSSAAIVGIAIGGVLLLLFVVDLLCCITVH
FT                                MGVMATMCRKAKRSPSEIDDEAKLGSGQLVKEP -> ESDS
FT                                ANNNLGTLLYSAGFNSGVGALHKRLFTTTTTTTATSTTTIT
FT                                SITTATTTIITLATTISITLLSVLASMLA (in isoform
FT                                2).
FT                                /FTId=VSP_002508.
FT   VARSPLIC    812    873       Missing (in isoform 2).
FT                                /FTId=VSP_002509.
FT   CONFLICT    804    804       S -> R (IN REF. 4; CAA21826).
SQ   SEQUENCE   873 AA;  96926 MW;  E48F0484CCE62AC9 CRC64;

  Query Match           12.2%;  Score 186;  DB 1;  Length 873;
  Best Local Similarity  24.6%;  Pred. No. 6.1e-08;
  Matches   67;  Conservative   50;  Mismatches  101;  Indels   54;  Gaps   13;

Qy        30 SAPKDQQVVTAVXYQEAILACKT---PKKTVXSRLEWKKLG---RSVSFVYYQQTLQGDF 83
             :||::|        |: :: |:    |  |:    :| : |   |: :  |  ||
Db       142 NAPENQYPTLG---QDYVVMCEVKADPNPTI----DWLRNGDPIRTTNDKYVVQT----- 189
```

```
Qy          84 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 143
Db         190 --------NGLLIRNVQESDEGIYTCR-AAVIETGELLER-TIRVEVFIQPEIISLPTNL 239

Qy         144 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 203
Db         240 EAVEGKPFAANCTAR-GKPVPEISWIRDATQL-------NVATADRFQVNPQTGLVTISS 291

Qy         204 VSKLDTGEYSCEARNSVGYRRCPGK-----RMQVDDL-NISGIIAAVVVVALVISVCGLG 257
Db         292 VSQDDYGTYTCLAKNRAGVVDQKTKLNVLVRPQIYELYNVTGARTKEIAI---------- 341

Qy         258 VCYAQRKGYFSKETSFQKSNSSSKATTMSEND 289
Db         342 TCRA--KGRPAPAITFRRWGTQEEYTNGQQDD 371
```

```
RESULT 8
CXAR_MOUSE
ID   CXAR_MOUSE     STANDARD;      PRT;   365 AA.
AC   P97792; O09052;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Coxsackievirus and adenovirus receptor homolog precursor (mCAR).
GN   CXADR OR CAR.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Liver;
RX   MEDLINE=97190109; PubMed=9036860;
RA   Bergelson J.M., Cunningham J.A., Droguett G., Kurt-Jones E.,
RA   Krithivas A., Hong J.S., Horwitz M.S., Crowell R.L., Finberg R.W.;
RT   "Isolation of a common receptor for Coxsackie B viruses and
RT   adenoviruses 2 and 5.";
RL   Science 275:1320-1323(1997).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C3H/MAI;
RX   MEDLINE=97250541; PubMed=9096397;
RA   Tomko R.P., Xu R., Philipson L.;
RT   "HCAR and MCAR: the human and mouse cellular receptors for subgroup C
RT   adenoviruses and group B coxsackieviruses.";
RL   Proc. Natl. Acad. Sci. U.S.A. 94:3352-3356(1997).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Liver;
RA   Bergelson J.M., Krithivas A., Crowell T.L., Finberg R.W.;
RT   "The murine CAR homologue (mCAR) is a receptor for coxsackie B
RT   viruses and adenoviruses.";
RL   Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like C2-type domains.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; Y10320; CAA71368.1; -.
DR   EMBL; U90715; AAC53148.1; -.
DR   EMBL; Y11929; CAA72679.1; -.
DR   MGD; MGI:1201679; Cxadr.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain; Receptor; Transmembrane; Glycoprotein; Signal;
KW   Repeat.
FT   SIGNAL        1     19       POTENTIAL.
FT   CHAIN        20    365       COXSACKIEVIRUS AND ADENOVIRUS RECEPTOR
FT                                HOMOLOG.
FT   DOMAIN       20    237       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    238    258       POTENTIAL.
FT   DOMAIN      259    365       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       20    136       IG-LIKE C2-TYPE 1.
FT   DOMAIN      141    228       IG-LIKE C2-TYPE 2.
FT   DISULFID     41    120       BY SIMILARITY.
FT   DISULFID    162    212       BY SIMILARITY.
FT   CARBOHYD    106    106       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    201    201       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CONFLICT    340    365       VAAPNLSRMGAVPVMIPAQSKDGSIV -> FKYAYKTDGIT
FT                                VV (IN REF. 2 AND 3).
SQ   SEQUENCE   365 AA;  39947 MW;  5445B4B52A34B2A2 CRC64;
```

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  Query Match             11.8%;  Score 180;  DB 1;  Length 365;
  Best Local Similarity   23.7%;  Pred. No. 6.8e-08;
  Matches   75;  Conservative   44;  Mismatches  130;  Indels   68;  Gaps    9;

Qy          28 GFSAPKDQQVVTAVXYQEAILACK---TPKKTVXSRLEW------KKLGRSVSFVY---- 74
Db          19 GLSITTPEQRIEKAKGETAYLPCKFTLSPEDQGPLDIEWLISPSDNQIVDQVIILYSGDK 78

Qy          75 ----YQQTLQGDF---KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVT 127
Db          79 IYDNYYPDLKGRVHFTSNDVKSGDASINVTNLQLSDIGTYQCKV----KKAPGVANKKFL 134

Qy         128 LEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTN 187
Db         135 LTVLVKPSGTRCFVDGSEEIGNDFKLKCEPKEGSLPLQFEW---------------QKLS 179

Qy         188 SSYTMNT------KTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGII 241
Db         180 DSQTMPTPWLAEMTSPVISVKNASSEYSGTYSCTVQNRVGSDQCMLRLDVVPPSNRAGTI 239

Qy         242 AAVVV---VALVISVCGLGVCYAQR--------------------KGYFSKETSFQKSNS 278
Db         240 AGAVIGTLLALVLIGAILFCCHRKRREEKYEKEVHHDIREDVPPPKSRTSTARSYIGSNH 299

Qy         279 SSKATTMSENDFKHTKS 295
Db         300 SSLGSMSPSNMEGYSKT 316
```

```
RESULT 9
UN89_CAEEL
ID   UN89_CAEEL     STANDARD;      PRT;  6632 AA.
AC   O01761; Q17362;
DT   15-SEP-2003 (Rel. 42, Created)
DT   15-SEP-2003 (Rel. 42, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Muscle M-line assembly protein unc-89 (Uncoordinated protein 89).
GN   UNC-89 OR C09D1.1.
OS   Caenorhabditis elegans.
OC   Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC   Rhabditidae; Peloderinae; Caenorhabditis.
OX   NCBI_TaxID=6239;
RN   [1]
RP   SEQUENCE FROM N.A., FUNCTION, AND TISSUE SPECIFICITY.
RC   STRAIN=Bristol N2;
RX   MEDLINE=96180278; PubMed=8603916;
RA   Benian G.M., Tinley T.L., Tang X., Borodovsky M.;
RT   "The Caenorhabditis elegans gene unc-89, required for muscle M-line
RT   assembly, encodes a giant modular protein composed of Ig and signal
RT   transduction domains.";
RL   J. Cell Biol. 132:835-848(1996).
RN   [2]
RP   SEQUENCE FROM N.A.
```

```
RC   STRAIN=Bristol N2;
RA   Du Z., Le T.T., Wilson R.;
RL   Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   REVISIONS.
RA   Waterston R.;
RL   Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Structural component of the muscle M-line. Myofilament
CC       lattice assembly begins with positional cues laid down in the
CC       basement membrane and muscle cell membrane. UNC-89 responds to
CC       these signals, localizes, and then participates in assembling an
CC       M-line.
CC   -!- TISSUE SPECIFICITY: Localizes to the middle of A-bands.
CC   -!- SIMILARITY: Contains 1 DBL-homology (DH) domain.
CC   -!- SIMILARITY: Contains 1 fibronectin type III domain.
CC   -!- SIMILARITY: Contains 49 immunoglobulin-like C2-type domains.
CC   -!- SIMILARITY: Contains 1 PH domain.
CC   -!- SIMILARITY: Contains 5 RCSD domains.
CC   -!- SIMILARITY: Contains 1 SH3 domain.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U33058; AAB00542.1; -.
DR   EMBL; AF003131; AAB54132.2; -.
DR   PDB; 1FHO; 20-DEC-00.
DR   WormPep; C09D1.1; CE30426.
DR   InterPro; IPR003961; FN_III.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR001849; PH.
DR   InterPro; IPR007850; RCSD.
DR   InterPro; IPR000219; RhoGEF.
DR   InterPro; IPR001452; SH3.
DR   Pfam; PF00041; fn3; 1.
DR   Pfam; PF00047; ig; 47.
DR   Pfam; PF00169; PH; 1.
DR   Pfam; PF05177; RCSD; 5.
DR   Pfam; PF00621; RhoGEF; 1.
DR   Pfam; PF00018; SH3; 1.
DR   SMART; SM00408; IGc2; 23.
DR   SMART; SM00325; RhoGEF; 1.
DR   SMART; SM00326; SH3; 1.
DR   PROSITE; PS50010; DH_2; 1.
DR   PROSITE; PS50835; IG_LIKE; 49.
DR   PROSITE; PS50003; PH_DOMAIN; 1.
DR   PROSITE; PS50002; SH3; 1.
KW   Muscle protein; Immunoglobulin domain; Repeat; SH3 domain;
KW   3D-structure.
FT   DOMAIN       63    127       SH3.
FT   DOMAIN      152    330       DH.
FT   DOMAIN      342    498       PH.
FT   DOMAIN      547    633       IG-LIKE C2-TYPE 1.
FT   DOMAIN      648    736       IG-LIKE C2-TYPE 2.
FT   DOMAIN      748    838       IG-LIKE C2-TYPE 3.
FT   DOMAIN      946   1033       IG-LIKE C2-TYPE 4.
FT   DOMAIN     1044   1132       IG-LIKE C2-TYPE 5.
FT   DOMAIN     1140   1227       IG-LIKE C2-TYPE 6.
FT   DOMAIN     1272   1315       THR-RICH.
FT   DOMAIN     1375   1475       RCSD 1.
FT   DOMAIN     1479   1585       RCSD 2.
FT   DOMAIN     1597   1695       RCSD 3.
FT   DOMAIN     1700   1799       RCSD 4.
FT   DOMAIN     1800   1860       RCSD 5.
FT   DOMAIN     1982   2067       IG-LIKE C2-TYPE 7.
FT   DOMAIN     2071   2163       IG-LIKE C2-TYPE 8.
FT   DOMAIN     2171   2261       IG-LIKE C2-TYPE 9.
FT   DOMAIN     2269   2359       IG-LIKE C2-TYPE 10.
FT   DOMAIN     2367   2455       IG-LIKE C2-TYPE 11.
FT   DOMAIN     2463   2564       IG-LIKE C2-TYPE 12.
FT   DOMAIN     2563   2651       IG-LIKE C2-TYPE 13.
FT   DOMAIN     2657   2746       IG-LIKE C2-TYPE 14.
FT   DOMAIN     2754   2858       IG-LIKE C2-TYPE 15.
FT   DOMAIN     2887   2980       IG-LIKE C2-TYPE 16.
FT   DOMAIN     2994   3081       IG-LIKE C2-TYPE 17.
FT   DOMAIN     3087   3183       IG-LIKE C2-TYPE 18.
FT   DOMAIN     3189   3280       IG-LIKE C2-TYPE 19.
FT   DOMAIN     3286   3376       IG-LIKE C2-TYPE 20.
FT   DOMAIN     3384   3469       IG-LIKE C2-TYPE 21.
FT   DOMAIN     3482   3572       IG-LIKE C2-TYPE 22.
FT   DOMAIN     3580   3667       IG-LIKE C2-TYPE 23.
FT   DOMAIN     3686   3777       IG-LIKE C2-TYPE 24.
FT   DOMAIN     3817   3908       IG-LIKE C2-TYPE 25.
FT   DOMAIN     3920   4009       IG-LIKE C2-TYPE 26.
FT   DOMAIN     4018   4106       IG-LIKE C2-TYPE 27.
FT   DOMAIN     4109   4201       IG-LIKE C2-TYPE 28.
FT   DOMAIN     4212   4297       IG-LIKE C2-TYPE 29.
FT   DOMAIN     4302   4387       IG-LIKE C2-TYPE 30.
FT   DOMAIN     4400   4485       IG-LIKE C2-TYPE 31.
FT   DOMAIN     4489   4580       IG-LIKE C2-TYPE 32.
FT   DOMAIN     4588   4678       IG-LIKE C2-TYPE 33.
FT   DOMAIN     4681   4771       IG-LIKE C2-TYPE 34.
FT   DOMAIN     4873   4961       IG-LIKE C2-TYPE 35.
FT   DOMAIN     4965   5057       IG-LIKE C2-TYPE 36.
FT   DOMAIN     5067   5160       IG-LIKE C2-TYPE 37.
FT   DOMAIN     5171   5260       IG-LIKE C2-TYPE 38.
FT   DOMAIN     5277   5366       IG-LIKE C2-TYPE 39.
FT   DOMAIN     5383   5472       IG-LIKE C2-TYPE 40.
FT   DOMAIN     5487   5578       IG-LIKE C2-TYPE 41.
FT   DOMAIN     5595   5685       IG-LIKE C2-TYPE 42.
FT   DOMAIN     5701   5790       IG-LIKE C2-TYPE 43.
FT   DOMAIN     5815   5904       IG-LIKE C2-TYPE 44.
FT   DOMAIN     5925   6014       IG-LIKE C2-TYPE 45.
FT   DOMAIN     6038   6130       IG-LIKE C2-TYPE 46.
FT   DOMAIN     6150   6239       IG-LIKE C2-TYPE 47.
FT   DOMAIN     6275   6368       FIBRONECTIN TYPE-III.
FT   DOMAIN     6413   6502       IG-LIKE C2-TYPE 48.
FT   DOMAIN     6507   6596       IG-LIKE C2-TYPE 49.
FT   DISULFID    568    621       POTENTIAL.
FT   DISULFID   2908   2975       POTENTIAL.
FT   DISULFID   3015   3065       POTENTIAL.
FT   DISULFID   3707   3759       POTENTIAL.
FT   DISULFID   3826   3890       POTENTIAL.
FT   DISULFID   5092   5157       POTENTIAL.
FT   DISULFID   5298   5350       POTENTIAL.
FT   DISULFID   5508   5560       POTENTIAL.
FT   DISULFID   5616   5669       POTENTIAL.
FT   DISULFID   5722   5764       POTENTIAL.
FT   DISULFID   5836   5901       POTENTIAL.
FT   DISULFID   5946   5998       POTENTIAL.
FT   DISULFID   6036   6171       POTENTIAL.
FT   DISULFID   6421   6486       POTENTIAL.
FT   CONFLICT   2137   2137       A -> P (IN REF. 1).
FT   CONFLICT   2245   2247       AKA -> PKP (IN REF. 1).
FT   CONFLICT   2258   2258       A -> P (IN REF. 1).
FT   CONFLICT   2284   2284       E -> G (IN REF. 1).
FT   CONFLICT   2297   2297       M -> I (IN REF. 1).
FT   CONFLICT   3531   3531       A -> G (IN REF. 1).
FT   CONFLICT   3884   3888       DAGEY -> RRRRI (IN REF. 1).
FT   CONFLICT   3929   3929       A -> V (IN REF. 1).
FT   CONFLICT   5134   5134       A -> P (IN REF. 1).
FT   CONFLICT   5145   5145       T -> S (IN REF. 1).
FT   CONFLICT   5185   5185       G -> A (IN REF. 1).
FT   CONFLICT   5199   5199       K -> N (IN REF. 1).
FT   CONFLICT   5202   5202       L -> F (IN REF. 1).
FT   CONFLICT   5213   5213       F -> L (IN REF. 1).
FT   CONFLICT   6178   6178       A -> G (IN REF. 1).
FT   CONFLICT   6268   6268       K -> E (IN REF. 1).
SQ   SEQUENCE   6632 AA;  731665 MW;  262D3EDD62960E89 CRC64;
```

```
  Query Match             11.2%;  Score 171;  DB 1;  Length 6632;
  Best Local Similarity   28.1%;  Pred. No. 1.3e-05;
  Matches   61;  Conservative   29;  Mismatches   75;  Indels   52;  Gaps   11;

Qy         28 GFSAPKDQQVV---TAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGDFK 84
              |  ||:  :::   |     |:||| ||  |      :::| | |: |             :
Db       3813 GRGAPEFVELLRSCTVTEKQQAILKCKV-KGEPRPKIKWTKEGKEVEM---------SAR 3862

Qy         85 NRAEMID---FNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEV 141
               |||  |     :   |||::|||:|||| | :| |   |  : : :  || :   |
Db       3863 VRAEHKDDGTLTLTFDNVTQADAGEYRCE--AENEYGSAWTEGPIIVTLEGAPKIDG-EA 3919

Qy        142 P--------------SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQST 186
              |             :: | | :          | | |   |:|:|   |  : |:  :
Db       3920 PDFLQPVKPAVVTVGETAVLEGKI--------SGKPKPSVKWYKNGEELKPSDRVKIE-- 3969

Qy        187 NSSYTMNTKTGTLQFN-TVSKL-DTGEYSCEARNSVG 221
                |   || :   | :|| |  || ||| |  |
Db       3970 ------NLDDGTQRLTVTNAKLDDMDEYRCEASNEFG 4000


RESULT 10
CEA6_HUMAN
ID   CEA6_HUMAN     STANDARD;      PRT;   344 AA.
AC   P40199; Q14920;
DT   01-FEB-1995 (Rel. 31, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Carcinoembryonic antigen-related cell adhesion molecule 6 precursor
DE   (Normal cross-reacting antigen) (Nonspecific crossreacting antigen)
DE   (CD66c antigen).
GN   CEACAM6 OR NCA.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=89122014; PubMed=3220478;
RA   Barnett T., Goebel S.J., Nothdurft M.A., Elting J.J.;
RT   "Carcinoembryonic antigen family: characterization of cDNAs coding
RT   for NCA and CEA and suggestion of nonrandom sequence variation in
RT   their conserved loop-domains.";
RL   Genomics 3:59-66(1988).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Lung carcinoma;
RX   MEDLINE=88106638; PubMed=3337731;
RA   Tawaragi Y., Oikawa S., Matsuoka Y., Kosaki G., Nakazato H.;
RT   "Primary structure of nonspecific crossreacting antigen (NCA), a
RT   member of carcinoembryonic antigen (CEA) gene family, deduced from
RT   cDNA sequence.";
RL   Biochem. Biophys. Res. Commun. 150:89-96(1988).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Pancreas;
RX   MEDLINE=22388257; PubMed=12477932;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY. CEA
CC       SUBFAMILY.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like C2-type domains.
CC   -!- DATABASE: NAME=PROW; NOTE=CD guide CD66c entry;
CC       WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd66c.htm".
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; M29541; AAA59915.1; -.
DR   EMBL; M18728; AAA59907.1; -.
DR   EMBL; BC005008; AAH05008.1; -.
DR   Genew; HGNC:1818; CEACAM6.
DR   MIM; 163980; -.
DR   GO; GO:0005887; C:integral to plasma membrane; TAS.
DR   GO; GO:0007267; P:cell-cell signaling; TAS.
DR   GO; GO:0007165; P:signal transduction; TAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 3.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain; Antigen; Signal; Glycoprotein; GPI-anchor;
KW   Repeat.
FT   SIGNAL        1     34       BY SIMILARITY.
FT   CHAIN        35    320       CARCINOEMBRYONIC ANTIGEN-RELATED CELL
FT                                 ADHESION MOLECULE 6.
FT   PROPEP      321    344       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       320    320       GPI-ANCHOR (BY SIMILARITY).
FT   DOMAIN       35    142       IG-LIKE V-TYPE.
FT   DOMAIN      145    232       IG-LIKE C2-TYPE 1.
FT   DOMAIN      237    314       IG-LIKE C2-TYPE 2.
FT   DISULFID    167    215       PROBABLE.
FT   DISULFID    259    299       PROBABLE.
FT   CARBOHYD    104    104       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    111    111       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    115    115       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    152    152       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    173    173       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    197    197       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    224    224       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    256    256       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    274    274       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    288    288       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    292    292       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    309    309       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CONFLICT    138    138       F -> L (IN REF. 1).
FT   CONFLICT    239    239       V -> G (IN REF. 1).
SQ   SEQUENCE   344 AA;  37237 MW;  4322C5D6E25849F5 CRC64;

  Query Match             10.8%;  Score 164;  DB 1;  Length 344;
  Best Local Similarity   29.0%;  Pred. No. 1.4e-06;
  Matches   49;  Conservative   25;  Mismatches   61;  Indels   34;  Gaps    8;

Qy         91 DFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSA--LSG 148
               :  : : :| |:||| | ||:  |:   ::   | ||| ||  | ||:   || |    |
Db        197 NMTLTLLSVKRNDAGSYECEIQNPASANRS---DPVTLNVLYGPDVPTIS-PSKANYRPG 252

Qy        149 TVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLD 208
               : | |     ||  :|:|| :|                |   | |   ::  :
Db        253 ENLNLSCH-AASNPPAQYSWFING----------------TFQQSTQELFIPNITVNN 293
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Qy        209 TGEYSCEARNSVGYRRCPG-KRMQVDDLNISG---IIAAVVVVALVISV 253
              :| | |:| ||       | | |  : :||   :::|| | : | |
Db        294 SGSYMCQAHNS-----ATGLNRTTVTMITVSGSAPVLSAVATVGITIGV 337


RESULT 11
VGR2_MOUSE
ID   VGR2_MOUSE     STANDARD;      PRT;  1367 AA.
AC   P35918;
DT   01-JUN-1994 (Rel. 29, Created)
DT   01-JUN-1994 (Rel. 29, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Vascular endothelial growth factor receptor 2 precursor (EC 2.7.1.112)
DE   (VEGFR-2) (Protein-tyrosine kinase receptor flk-1) (Fetal liver kinase
DE   1) (Kinase NYK).
GN   KDR OR FLK1 OR FLK-1.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=BALB/c; TISSUE=Embryo;
RX   MEDLINE=93208880; PubMed=7681362;
RA   Millauer B., Wizigmann-Voos S., Schnurch H., Martinez R.,
RA   Mueller N.P.H., Risau W., Ullrich A.;
RT   "High affinity VEGF binding and developmental expression suggest
RT   Flk-1 as a major regulator of vasculogenesis and angiogenesis.";
RL   Cell 72:835-846(1993).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C3H/He; TISSUE=Fetal liver;
RX   MEDLINE=92020984; PubMed=1717995;
RA   Mathews W., Jordan C.T., Gavin M., Jenkins N.A., Copeland N.G.,
RA   Lemishcka I.R.;
RT   "A receptor tyrosine kinase cDNA isolated from a population of
RT   enriched primitive hematopoietic cells and exhibiting close genetic
RT   linkage to c-kit.";
RL   Proc. Natl. Acad. Sci. U.S.A. 88:9026-9030(1991).
RN   [3]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93141255; PubMed=8423988;
RA   Oelrichs R.B., Reid H.H., Bernard O., Ziemiecki A., Wilks A.F.;
RT   "NYK/FLK-1: a putative receptor protein tyrosine kinase isolated from
RT   E10 embryonic neuroepithelium is expressed in endothelial cells of
RT   the developing embryo.";
RL   Oncogene 8:11-18(1993).
RN   [4]
RP   SEQUENCE OF 1-15 FROM N.A.
RX   MEDLINE=96032749; PubMed=7559454;
RA   Patterson C., Perrella M.A., Hsieh C.-M., Yoshizumi M., Lee M.-E.,
RA   Harber E.;
RT   "Cloning and functional analysis of the promoter for KDR/flk-1, a
RT   receptor for vascular endothelial growth factor.";
RL   J. Biol. Chem. 270:23111-23118(1995).
RN   [5]
RP   FUNCTION.
RX   MEDLINE=93361481; PubMed=8356051;
RA   Quinn T.P., Peters K.G., de Vries C., Ferrara N., Williams L.T.;
RT   "Fetal liver kinase 1 is a receptor for vascular endothelial growth
RT   factor and is selectively expressed in vascular endothelium.";
RL   Proc. Natl. Acad. Sci. U.S.A. 90:7533-7537(1993).
CC   -!- FUNCTION: RECEPTOR FOR VEGF OR VEGF-C. HAS A TYROSINE-PROTEIN
CC       KINASE ACTIVITY. THE VEGF-KINASE LIGAND/RECEPTOR SIGNALING SYSTEM
CC       PLAYS A KEY ROLE IN VASCULAR DEVELOPMENT AND REGULATION OF
CC       VASCULAR PERMEABILITY.
CC   -!- CATALYTIC ACTIVITY: ATP + a protein tyrosine = ADP + protein
CC       tyrosine phosphate.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN ADULT HEART, LUNG,
CC       KIDNEY, BRAIN AND SKELETAL MUSCLE, BUT IS ALSO EXPRESSED AT LOWER
CC       LEVELS IN MOST OTHER ADULT TISSUES.
CC   -!- SIMILARITY: BELONGS TO THE CSF-1/PDGF RECEPTOR FAMILY OF TYROSINE-
CC       PROTEIN KINASES.
CC   -!- SIMILARITY: Contains 7 immunoglobulin-like C2-type domains.
CC   ---------------------------------------------------------------------
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CC   ---------------------------------------------------------------------
DR   EMBL; X70842; CAA50192.1; -.
DR   EMBL; X59397; CAA42040.1; -.
DR   EMBL; S53103; AAB25043.1; -.
DR   EMBL; X89777; CAA61917.1; -.
DR   PIR; A41228; A41228.
DR   HSSP; P11362; 1FGK.
DR   MGD; MGI:96683; Kdr.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR000719; Prot_kinase.
DR   InterPro; IPR001824; RTKinaseIII.
DR   InterPro; IPR001245; Tyr_pkinase.
DR   Pfam; PF00047; ig; 6.
DR   Pfam; PF00069; pkinase; 1.
DR   ProDom; PD000001; Prot_kinase; 2.
DR   SMART; SM00408; IGc2; 1.
DR   SMART; SM00219; TyrKc; 1.
DR   PROSITE; PS50835; IG_LIKE; 5.
DR   PROSITE; PS00107; PROTEIN_KINASE_ATP; 1.
DR   PROSITE; PS50011; PROTEIN_KINASE_DOM; 1.
DR   PROSITE; PS00109; PROTEIN_KINASE_TYR; 1.
DR   PROSITE; PS00240; RECEPTOR_TYR_KIN_III; 1.
KW   Angiogenesis; Signal; Transferase; Tyrosine-protein kinase; Receptor;
KW   Transmembrane; Glycoprotein; Phosphorylation; ATP-binding;
KW   Immunoglobulin domain; Repeat.
FT   SIGNAL        1     19       POTENTIAL.
FT   CHAIN        20   1367       VASCULAR ENDOTHELIAL GROWTH FACTOR
FT                                RECEPTOR 2.
FT   DOMAIN       20    762       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    763    784       POTENTIAL.
FT   DOMAIN      785   1367       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       46    111       IG-LIKE C2-TYPE 1.
FT   DOMAIN      143    209       IG-LIKE C2-TYPE 2.
FT   DOMAIN      226    325       IG-LIKE C2-TYPE 3.
FT   DOMAIN      330    416       IG-LIKE C2-TYPE 4.
FT   DOMAIN      423    542       IG-LIKE C2-TYPE 5.
FT   DOMAIN      549    656       IG-LIKE C2-TYPE 6.
FT   DOMAIN      665    751       IG-LIKE C2-TYPE 7.
FT   DOMAIN      832   1160       PROTEIN KINASE.
FT   NP_BIND     838    846       ATP (BY SIMILARITY).
FT   BINDING     866    866       ATP (BY SIMILARITY).
FT   ACT_SITE   1026   1026       BY SIMILARITY.
FT   CARBOHYD     46     46       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     98     98       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    145    145       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    160    160       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    247    247       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    320    320       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    376    376       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    397    397       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    509    509       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    521    521       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    578    578       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    611    611       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    617    617       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    629    629       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    673    673       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    702    702       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    719    719       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   MOD_RES    1057   1057       PHOSPHORYLATION (AUTO-) (BY SIMILARITY).
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FT   CONFLICT     25     25       P -> T (IN REF. 1).
FT   CONFLICT    679    679       G -> D (IN REF. 3).
FT   CONFLICT    783    784       LV -> VL (IN REF. 1).
FT   CONFLICT    917    917       S -> C (IN REF. 1).
FT   CONFLICT   1341   1367       QLTSCLNGSGPVPAPPPTPGNHERGAA -> RSPPV
FT                                (IN REF. 3).
SQ   SEQUENCE   1367 AA;  152516 MW;  EFC99704F1DCA266 CRC64;

  Query Match             10.6%;  Score 160.5;  DB 1;  Length 1367;
  Best Local Similarity   24.8%;  Pred. No. 1.5e-05;
  Matches   53;  Conservative   23;  Mismatches   75;  Indels   63;  Gaps    6;

Qy          44 QEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFN---------- 93
               ||::    |  :     | | |||   : |:  ::|    ||   :   |
Db         562 QESVSLLCTADRNTFENLTWYKLGSQATSVHMGESLTPVCKNLDALWKLNGTMFSNSTND 621

Qy          94 ---IRIKNVTRSDAGKYRC--------------------EVSAPSEQGQNLEEDTVTLEV 130
                 :  :| :  | | | |                    |  ||   | |||  | |:
Db         622 ILIVAFQNASLQDQGDYVCSAQDKKTKKRHCLVKQLIILERMAPMITG-NLENQTTTI-- 678

Qy         131 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSY 190
                           |  :|: |    ||| |  |||||   |:|:  :  :  | :
Db         679 ----------------GETIEVTC-PASGNPTPHITWFKDNETLVEDSGIVLRDGNRNL 720

Qy         191 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRR 224
               |:          | | | | |:|:| | :|  |
Db         721 TI---------RRVRKEDGGLYTCQACNVLGCAR 745


RESULT 12
NCM2_MOUSE
ID   NCM2_MOUSE     STANDARD;      PRT;   837 AA.
AC   O35136; O35962;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Neural cell adhesion molecule 2 precursor (N-CAM 2) (RB-8 neural cell
DE   adhesion molecule) (R4B12).
GN   NCAM2 OR OCAM OR RNCAM.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS LONG AND SHORT).
RC   STRAIN=BALB/c; TISSUE=Olfactory neuroepithelium;
RX   MEDLINE=97368238; PubMed=9221781;
RA   Yoshihara Y., Kawasaki M., Tamada A., Fujita H., Hayashi H.,
RA   Kagamiyama H., Mori K.;
RT   "OCAM: A new member of the neural cell adhesion molecule family
RT   related to zone-to-zone projection of olfactory and vomeronasal
RT   axons.";
RL   J. Neurosci. 17:5830-5842(1997).
RN   [2]
RP   SEQUENCE FROM N.A. (ISOFORM SHORT).
RC   STRAIN=C57BL/6J; TISSUE=Olfactory epithelium;
RX   MEDLINE=97476194; PubMed=9334170;
RA   Alenius M., Bohm S.;
RT   "Identification of a novel neural cell adhesion molecule-related gene
RT   with a potential role in selective axonal projection.";
RL   J. Biol. Chem. 272:26083-26086(1997).
CC   -!- FUNCTION: May play important roles in selective fasciculation and
CC       zone-to-zone projection of the primary olfactory axons.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein (long isoform) and
CC       attached to the membrane by a GPI-anchor (short isoform).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=2;
CC       Name=Long;
CC         IsoId=O35136-1; Sequence=Displayed;
CC       Name=Short;
CC         IsoId=O35136-2; Sequence=VSP_002590;
CC   -!- TISSUE SPECIFICITY: EXPRESSED IN SUBSETS OF BOTH OLFACTORY AND
CC       VOMERONASAL NEURONS IN A ZONE-SPECIFIC MANNER.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC   -!- SIMILARITY: Contains 5 immunoglobulin-like C2-type domains.
CC   -!- SIMILARITY: Contains 2 fibronectin type III domains.
CC   ---------------------------------------------------------------------
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CC   ---------------------------------------------------------------------
DR   EMBL; AF001287; AAB69125.1; -.
DR   EMBL; AF001286; AAB69124.1; -.
DR   EMBL; AF016619; AAC53375.1; -.
DR   MGD; MGI:97282; Ncam2.
DR   InterPro; IPR003961; FN_III.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00041; fn3; 2.
DR   Pfam; PF00047; ig; 5.
DR   SMART; SM00060; FN3; 2.
DR   SMART; SM00408; IGc2; 5.
DR   PROSITE; PS50835; IG_LIKE; 5.
KW   Cell adhesion; Transmembrane; Glycoprotein; Repeat;
KW   Immunoglobulin domain; Signal; GPI-anchor; Alternative splicing.
FT   SIGNAL        1     19       POTENTIAL.
FT   CHAIN        20    837       NEURAL CELL ADHESION MOLECULE 2.
FT   DOMAIN       20    697       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    698    718       POTENTIAL.
FT   DOMAIN      719    837       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       21    108       IG-LIKE C2-TYPE 1.
FT   DOMAIN      113    202       IG-LIKE C2-TYPE 2.
FT   DOMAIN      208    297       IG-LIKE C2-TYPE 3.
FT   DOMAIN      302    396       IG-LIKE C2-TYPE 4.
FT   DOMAIN      401    491       IG-LIKE C2-TYPE 5.
FT   DOMAIN      482    581       FIBRONECTIN TYPE-III 1.
FT   DOMAIN      594    678       FIBRONECTIN TYPE-III 2.
FT   DISULFID     42     93       PROBABLE.
FT   DISULFID    136    186       PROBABLE.
FT   DISULFID    232    281       PROBABLE.
FT   DISULFID    322    380       PROBABLE.
FT   DISULFID    422    475       PROBABLE.
FT   CARBOHYD    177    177       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    219    219       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    309    309       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    406    406       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    419    419       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    445    445       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    474    474       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    562    562       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARSPLIC    694    837       TLFNGLGLGAIIGLGVAALLLILVVTDVSCFFIRQCGLLMC
FT                                ITRRMCGKKSGSSGKSKELEEGKAAYLKDGSKEPIVEMRTE
FT                                DERITNHEDGSPVNEPNETTPLTEPEKLPLKEENGKEVLNA
FT                                ETIEIKVSNDIIQSKEDDIKA -> NCCEANKGENGGQSWH
FT                                LNAVGFTFVITMSLSCLF (in isoform Short).
FT                                /FTId=VSP_002590.
SQ   SEQUENCE   837 AA;  93203 MW;  70473B053A2D65A5 CRC64;

  Query Match             10.5%;  Score 159.5;  DB 1;  Length 837;
  Best Local Similarity   29.7%;  Pred. No. 1e-05;
  Matches   47;  Conservative   34;  Mismatches   58;  Indels   19;  Gaps    7;

Qy          69 SVSFVYYQQTLQGDFKNR-AEMIDFNIRIKNVTRSDAGKYRCE--VSAPSEQGQNLEEDT 125
               :||::|: : :      || | : : |::| |: :|| | |||| | | |    ::
Db         145 AVSWLYHNEEVTTIPDNRFAVLANNNLQILNINKSDEGIYRCEGRVEARGE----IDFRD 200

Qy         126 VTLEVLVAPAV--PSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 183
               : : | | ||:  |      ::|  |  : | |:   |:| |  :||::|  : || :
Db         201 IIVIVNVPPAIMMPQKSFNATAERGEEMTLTCK-ASGSPDPTISWFRNGKLIEENEKYIL 259

Qy         184 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVG 221
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            : :|:  |:        | ::| | | | |:| | |
Db       260 KGSNTELTVR--------NIINK-DGGSYVCKATNKAG 288


RESULT 13
NRG2_RAT
ID   NRG2_RAT       STANDARD;      PRT;   868 AA.
AC   O35569; O35073; O35570; O35571; O35572;
DT   15-DEC-1998 (Rel. 37, Created)
DT   15-DEC-1998 (Rel. 37, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Pro-neuregulin-2 precursor (Pro-NRG2) [Contains: Neuregulin-2 (NRG-2)
DE   (Neural-and thymus-derived activator for ERBB kinases) (NTAK)].
GN   NRG2 OR NTAK.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A., SEQUENCE OF 128-162, AND ALTERNATIVE SPLICING.
RX   MEDLINE=98006324; PubMed=9348101;
RA   Higashiyama S., Horikawa M., Yamada K., Ichino N., Nakano N.,
RA   Nakagawa T., Miyagawa J., Matsushita N., Nagatsu T., Taniguchi N.,
RA   Ishiguro H.;
RT   "A novel brain-derived member of the epidermal growth factor family
RT   that interacts with ErbB3 and ErbB4.";
RL   J. Biochem. 122:675-680(1997).
RN   [2]
RP   SEQUENCE OF 109-868 FROM N.A. (ISOFORMS 6 AND 7).
RC   TISSUE=Cerebellum;
RX   MEDLINE=97311397; PubMed=9168114;
RA   Chang H., Riese D.J. II, Gilbert W., Stern D.F., McMahan U.J.;
RT   "Ligands for ErbB-family receptors encoded by a neuregulin-like
RT   gene.";
RL   Nature 387:509-512(1997).
CC   -!- FUNCTION: DIRECT LIGAND FOR ERBB3 AND ERBB4 TYROSINE KINASE
CC       RECEPTORS. CONCOMITANTLY RECRUITS ERBB1 AND ERBB2 CORECEPTORS,
CC       RESULTING IN LIGAND-STIMULATED TYROSINE PHOSPHORYLATION AND
CC       ACTIVATION OF THE ERBB RECEPTORS. MAY ALSO PROMOTE THE
CC       HETERODIMERIZATION WITH THE EGF RECEPTOR.
CC   -!- SUBCELLULAR LOCATION: EXISTS AS AN TYPE I MEMBRANE PROTEIN AND AS
CC       A PROTEOLYTICALLY RELEASED SOLUBLE GROWTH FACTOR FORM. THE
CC       MEMBRANE-BOUND FORM DOES NOT SEEM TO BE ACTIVE (BY SIMILARITY).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=7;
CC         Comment=Additional isoforms seem to exist. The alpha-type and
CC         beta-type differ in the EGF-LIKE domain;
CC       Name=1; Synonyms=NTAK-alpha1;
CC         IsoId=O35569-1; Sequence=Displayed;
CC       Name=2; Synonyms=NTAK-alpha2A;
CC         IsoId=O35569-2; Sequence=VSP_003471;
CC       Name=3; Synonyms=NTAK-alpha2B, NTAK-alpha2-1P;
CC         IsoId=O35569-3; Sequence=VSP_003466, VSP_003471;
CC       Name=4; Synonyms=NTAK-beta;
CC         IsoId=O35569-4; Sequence=VSP_003470;
CC       Name=5; Synonyms=NTAK-gamma;
CC         IsoId=O35569-5; Sequence=VSP_003467, VSP_003468;
CC       Name=6; Synonyms=NRG2-alpha;
CC         IsoId=O35569-6; Sequence=VSP_003472, VSP_003473;
CC       Name=7; Synonyms=NRG2-beta;
CC         IsoId=O35569-7; Sequence=VSP_003465, VSP_003469;
CC   -!- TISSUE SPECIFICITY: EXPRESSED IN MOST PARTS OF THE BRAIN,
CC       ESPECIALLY THE OLFACTORY BULB AND CEREBELLUM WHERE IT LOCALIZES IN
CC       GRANULE AND PURKINJE CELLS. IN THE HIPPOCAMPUS, FOUND IN THE
CC       GRANULE CELLS OF THE DENTRATE GYRUS. IN THE BASAL FOREBRAIN, FOUND
CC       IN THE CHOLINERGIC CELLS. IN THE HINDBRAIN, WEAKLY DETECTABLE IN
CC       THE MOTOR TRIGEMINAL NUCLEUS. NOT DETECTED IN THE HYPOTHALAMUS.
CC       ALSO FOUND IN THE LIVER AND IN THE THYMUS. NOT DETECTED IN HEART,
CC       ADRENAL GLAND, OR TESTIS.
CC   -!- DEVELOPMENTAL STAGE: IN THE EMBRYO, EXPRESSED IN THE BRAIN OF
CC       E11.5 EMBRYOS WHERE IT IS FOUND IN THE TELENCEPHALON, BUT NOT IN
CC       THE HINDBRAIN. NOT FOUND IN THE HEART. IN THE ADULT, FOUND IN
CC       BRAIN AND THYMUS.
CC   -!- DOMAIN: THE CYTOPLASMIC DOMAIN MAY BE INVOLVED IN THE REGULATION
CC       OF TRAFFICKING AND PROTEOLYTIC PROCESSING. REGULATION OF THE
CC       PROTEOLYTIC PROCESSING INVOLVES INITIAL INTRACELLULAR DOMAIN
CC       DIMERIZATION (BY SIMILARITY).
CC   -!- DOMAIN: ERBB RECEPTOR BINDING IS ELICITED ENTIRELY BY THE EGF-LIKE
CC       DOMAIN (BY SIMILARITY).
CC   -!- PTM: PROTEOLYTIC CLEAVAGE CLOSE TO THE PLASMA MEMBRANE ON THE
CC       EXTERNAL FACE LEADS TO THE RELEASE OF THE SOLUBLE GROWTH FACTOR
CC       FORM (BY SIMILARITY).
CC   -!- PTM: EXTENSIVE GLYCOSYLATION PRECEDES THE PROTEOLYTIC CLEAVAGE (BY
CC       SIMILARITY).
CC   -!- SIMILARITY: Contains 1 EGF-like domain.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC   -!- SIMILARITY: BELONGS TO THE NEUREGULIN FAMILY.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; D89995; BAA23344.1; -.
DR   EMBL; D89996; BAA23345.1; -.
DR   EMBL; D89997; BAA23346.1; -.
DR   EMBL; D89998; BAA23347.1; -.
DR   EMBL; AB001576; BAA23348.1; -.
DR   PIR; JC5701; JC5701.
DR   PIR; JC5702; JC5702.
DR   HSSP; Q12784; 1HRE.
DR   InterPro; IPR006209; EGF_like.
DR   InterPro; IPR006210; IEGF.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR002154; Neuregulin.
DR   Pfam; PF00008; EGF; 1.
DR   Pfam; PF00047; ig; 1.
DR   Pfam; PF02158; Neuregulin; 1.
DR   SMART; SM00181; EGF; 1.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS00022; EGF_1; 1.
DR   PROSITE; PS01186; EGF_2; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Growth factor; EGF-like domain; Immunoglobulin domain; Glycoprotein;
KW   Transmembrane; Multigene family; Alternative splicing.
FT   PROPEP        1    127
FT   CHAIN       128    868       PRO-NEUREGULIN-2, MEMBRANE-BOUND FORM.
FT   CHAIN       128    428       NEUREGULIN-2.
FT   DOMAIN      128    429       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    430    450       INTERNAL SIGNAL SEQUENCE (POTENTIAL).
FT   DOMAIN      451    868       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN      253    348       IG-LIKE C2-TYPE.
FT   DOMAIN      346    356       SER/THR-RICH.
FT   DOMAIN      357    398       EGF-LIKE.
FT   DOMAIN       22     32       POLY-SER.
FT   DOMAIN       35     45       POLY-SER.
FT   DOMAIN       56     59       POLY-THR.
FT   DOMAIN      103    106       POLY-ALA.
FT   DOMAIN      739    745       POLY-PRO.
FT   DISULFID    273    327       BY SIMILARITY.
FT   DISULFID    361    375       BY SIMILARITY.
FT   DISULFID    369    386       BY SIMILARITY.
FT   DISULFID    388    397       BY SIMILARITY.
FT   CARBOHYD     33     33       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     34     34       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    163    163       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    294    294       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    362    362       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARSPLIC      1    108       Missing (in isoform 7).
FT                                /FTId=VSP_003465.
FT   VARSPLIC    220    222       PLV -> FFF (in isoform 3).
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FT                                     /FTId=VSP_003466.
FT   VARSPLIC    388    388        C -> G (in isoform 5).
FT                                     /FTId=VSP_003467.
FT   VARSPLIC    389    868        Missing (in isoform 5).
FT                                     /FTId=VSP_003468.
FT   VARSPLIC    390    412        NGFFGQRCLEKLPLRLYMPDPKQ -> VGYTGDRCQQFAMV
FT                                     NFS (in isoform 7).
FT                                     /FTId=VSP_003469.
FT   VARSPLIC    390    421        NGFFGQRCLEKLPLRLYMPDPKQKHLGFELKE -> VGYTG
FT                                     DRCQQFAMVNFSK (in isoform 4).
FT                                     /FTId=VSP_003470.
FT   VARSPLIC    414    421        Missing (in isoform 2 and isoform 3).
FT                                     /FTId=VSP_003471.
FT   VARSPLIC    414    439        HLGFELKEAEELYQKRVLTITGICVA -> SVLWDTPGTGV
FT                                     SSSQWSTSPSTLDLN (in isoform 6).
FT                                     /FTId=VSP_003472.
FT   VARSPLIC    440    868        Missing (in isoform 6).
FT                                     /FTId=VSP_003473.
FT   CONFLICT    117    117        S -> F (IN REF. 2).
FT   CONFLICT    724    724        R -> H (IN REF. 2).
SQ   SEQUENCE   868 AA;  93776 MW;  3C7D4D94DBE64DE2 CRC64;

  Query Match             10.3%;  Score 157;  DB 1;  Length 868;
  Best Local Similarity   27.7%;  Pred. No. 1.7e-05;
  Matches   56;  Conservative   24;  Mismatches   86;  Indels   36;  Gaps    8;

Qy         66 LGRSVSFVYYQQTLQGD--FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEE 123
              | |:  :::: :  :    ||     :| |   ||: : : ||  |   |   : : ::
Db        204 LERNQRYIFFLEPTEQPLVFKTAFAPVDPN--GKNI-KKEVGKILCTDCATRPKLKKMKS 260

Qy        124 DTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 183
              |  :                        |    |:|:   ||| | | ||||| |     |
Db        261 QTGEV------------------GEKQSLKCEAAAGNPQPSYRWFKDGKELNR-----S 296

Qy        184 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNI-----S 238
              :     |   |  |||| |   | ||| ||| | :|    | |: |: ::      |
Db        297 RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRG-RLHVNSVSTTLSSWS 355

Qy        239 GIIAAVVVVALVISVCGLGVCY 260
              |      |    | | ||||
Db        356 GHARKCNETAKSYCVNG-GVCY 376


RESULT 14
NRG2_MOUSE
ID   NRG2_MOUSE     STANDARD;      PRT;   756 AA.
AC   P56974;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Pro-neuregulin-2 precursor (Pro-NRG2) [Contains: Neuregulin-2 (NRG-2)
DE   (Divergent of neuregulin 1) (DON-1)].
GN   NRG2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS NRG2-5; NRG2-10 AND NRG2-16A).
RC   STRAIN=C57BL/6; TISSUE=Brain;
RX   MEDLINE=97311398; PubMed=9168115;
RA   Carraway K.L. III, Weber J.L., Unger M.J., Ledesma J., Yu N.,
RA   Gassmann M., Lai C.;
RT   "Neuregulin-2, a new ligand of ErbB3/ErbB4-receptor tyrosine
RT   kinases.";
RL   Nature 387:512-516(1997).
RN   [2]
RP   SEQUENCE OF 150-756 FROM N.A. (ISOFORMS DON-1M AND DON-1S).
RC   TISSUE=Choroid plexus;
RX   MEDLINE=97342638; PubMed=9199335;
RA   Busfield S.J., Michnick D.A., Chickering T.W., Revett T.L., Ma J.,
RA   Woolf E.A., Comrack C.A., Dussault B.J., Woolf J., Goodearl A.D.J.,
RA   Gearing D.P.;
RT   "Characterization of a neuregulin-related gene, Don-1, that is highly
RT   expressed in restricted regions of the cerebellum and hippocampus.";
RL   Mol. Cell. Biol. 17:4007-4014(1997).
CC   -!- FUNCTION: DIRECT LIGAND FOR ERBB3 AND ERBB4 TYROSINE KINASE
CC       RECEPTORS. CONCOMITANTLY RECRUITS ERBB1 AND ERBB2 CORECEPTORS,
CC       RESULTING IN LIGAND-STIMULATED TYROSINE PHOSPHORYLATION AND
CC       ACTIVATION OF THE ERBB RECEPTORS. MAY ALSO PROMOTE THE
CC       HETERODIMERIZATION WITH THE EGF RECEPTOR.
CC   -!- SUBCELLULAR LOCATION: EXISTS AS AN TYPE I MEMBRANE PROTEIN AND AS
CC       A PROTEOLYTICALLY RELEASED SOLUBLE GROWTH FACTOR FORM. THE
CC       MEMBRANE-BOUND FORM DOES NOT SEEM TO BE ACTIVE (BY SIMILARITY).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=4;
CC         Comment=Additional isoforms seem to exist;
CC       Name=NRG2-16A;
CC         IsoId=P56974-1; Sequence=Displayed;
CC       Name=DON-1M;
CC         IsoId=P56974-2; Sequence=VSP_003464;
CC       Name=DON-1S; Synonyms=NRG2-5;
CC         IsoId=P56974-3; Sequence=VSP_003462, VSP_003463;
CC       Name=NRG2-10;
CC         IsoId=P56974-4; Sequence=VSP_003460, VSP_003461;
CC   -!- TISSUE SPECIFICITY: HIGHEST EXPRESSION IN THE BRAIN, WITH LOWER
CC       LEVELS IN THE LUNG. IN THE CEREBELLUM, FOUND IN GRANULE AND
CC       PURKINJE CELLS.
CC   -!- DOMAIN: THE CYTOPLASMIC DOMAIN MAY BE INVOLVED IN THE REGULATION
CC       OF TRAFFICKING AND PROTEOLYTIC PROCESSING. REGULATION OF THE
CC       PROTEOLYTIC PROCESSING INVOLVES INITIAL INTRACELLULAR DOMAIN
CC       DIMERIZATION (BY SIMILARITY).
CC   -!- DOMAIN: ERBB RECEPTOR BINDING IS ELICITED ENTIRELY BY THE EGF-LIKE
CC       DOMAIN (BY SIMILARITY).
CC   -!- PTM: PROTEOLYTIC CLEAVAGE CLOSE TO THE PLASMA MEMBRANE ON THE
CC       EXTERNAL FACE LEADS TO THE RELEASE OF THE SOLUBLE GROWTH FACTOR
CC       FORM (BY SIMILARITY).
CC   -!- PTM: EXTENSIVE GLYCOSYLATION PRECEDES THE PROTEOLYTIC CLEAVAGE (BY
CC       SIMILARITY).
CC   -!- SIMILARITY: Contains 1 EGF-like domain.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC   -!- SIMILARITY: BELONGS TO THE NEUREGULIN FAMILY.
DR   HSSP; Q12784; 1HRE.
DR   MGD; MGI:1098246; Nrg2.
DR   InterPro; IPR006209; EGF_like.
DR   InterPro; IPR006210; IEGF.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR002154; Neuregulin.
DR   Pfam; PF00008; EGF; 1.
DR   Pfam; PF00047; ig; 1.
DR   Pfam; PF02158; Neuregulin; 1.
DR   SMART; SM00181; EGF; 1.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS00022; EGF_1; 1.
DR   PROSITE; PS01186; EGF_2; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Growth factor; EGF-like domain; Immunoglobulin domain; Glycoprotein;
KW   Transmembrane; Multigene family; Alternative splicing.
FT   PROPEP        1     19       BY SIMILARITY.
FT   CHAIN        20    756       PRO-NEUREGULIN-2, MEMBRANE-BOUND FORM.
FT   CHAIN        20    314       NEUREGULIN-2.
FT   DOMAIN       20    315       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    316    336       INTERNAL SIGNAL SEQUENCE (POTENTIAL).
FT   DOMAIN      337    756       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN      145    240       IG-LIKE C2-TYPE.
FT   DOMAIN      238    248       SER/THR-RICH.
FT   DOMAIN      249    290       EGF-LIKE.
FT   DOMAIN      627    633       POLY-PRO.
FT   DISULFID    165    219       BY SIMILARITY.
FT   DISULFID    253    267       BY SIMILARITY.
FT   DISULFID    261    278       BY SIMILARITY.
FT   DISULFID    280    289       BY SIMILARITY.
FT   CARBOHYD     55     55       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    186    186       N-LINKED (GLCNAC. . .) (POTENTIAL).
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FT   CARBOHYD     254     254       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     296     296       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARSPLIC     280     280       C -> G (in isoform NRG2-10).
FT                                  /FTId=VSP_003460.
FT   VARSPLIC     281     756       Missing (in isoform NRG2-10).
FT                                  /FTId=VSP_003461.
FT   VARSPLIC     282     330       VGYTGDRCQQFAMVNFSKHLGFELKEAEELYQKRVLTITGI
FT                                  CVALLVVG -> NGFFGQRCLEKLPLRLYMPDPKQSVLWDT
FT                                  PGTGVSSSQWSTSPSTLDLN (in isoform DON-1S).
FT                                  /FTId=VSP_003462.
FT   VARSPLIC     331     756       Missing (in isoform DON-1S).
FT                                  /FTId=VSP_003463.
FT   VARSPLIC     282     307       VGYTGDRCQQFAMVNFSKHLGFELKE -> NGFFGQRCLEK
FT                                  LPLRLYMPDPKQK (in isoform DON-1M).
FT                                  /FTId=VSP_003464.
SQ   SEQUENCE   756 AA;  82213 MW;  51D85DC918BE678E CRC64;

  Query Match             10.3%;  Score 156;  DB 1;  Length 756;
  Best Local Similarity   27.7%;  Pred. No. 1.7e-05;
  Matches   56;  Conservative   24;  Mismatches   86;  Indels   36;  Gaps    8;

Qy         66 LGRSVSFVYYQQTLQGD--FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEE 123
              | |:  :::: :  :    ||     :| |   ||: : : ||  |    |   : : ::
Db         96 LERNQRYIFFLEPTEQPLVFKTAFAPVDPN--GKNI-KKEVGKILCTDCATRPKLKKMKS 152

Qy        124 DTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 183
               |  :                        |    |:|:   ||| | | ||||| |       |
Db        153 QTGEV------------------GEKQSLKCEAAAGNPQPSYRWFKDGKELNR-----S 188

Qy        184 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNI-----S 238
              :    |    |  ||| |   | ||| ||| | :|     | |: |: ::      |
Db        189 RDIRIKYGNGRKNSRLQFNKVRVEDAGEYVCEAENILGKDTVRG-RLHVNSVSTTLSSWS 247

Qy        239 GIIAAVVVVALVISVCGLGVCY 260
              |       |   | | ||||
Db        248 GHARKCNETAKSYCVNG-GVCY 268


RESULT 15
PTPF_HUMAN
ID   PTPF_HUMAN     STANDARD;      PRT;  1897 AA.
AC   P10586;
DT   01-JUL-1989 (Rel. 11, Created)
DT   01-JUL-1989 (Rel. 11, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   LAR protein precursor (Leukocyte antigen related) (EC 3.1.3.48).
GN   PTPRF OR LAR.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Tonsil;
RX   MEDLINE=89035978; PubMed=2972792;
RA   Streuli M., Krueger N.X., Hall L.R., Schlossman S.F., Saito H.;
RT   "A new member of the immunoglobulin superfamily that has a
RT   cytoplasmic region homologous to the leukocyte common antigen.";
RL   J. Exp. Med. 168:1523-1530(1988).
RN   [2]
RP   MUTAGENESIS.
RX   MEDLINE=90046860; PubMed=2554325;
RA   Streuli M., Krueger N.X., Tsai A.Y.M., Saito H.;
RT   "A family of receptor-linked protein tyrosine phosphatases in humans
RT   and Drosophila.";
RL   Proc. Natl. Acad. Sci. U.S.A. 86:8698-8702(1989).
RN   [3]
RP   MUTAGENESIS.
RX   MEDLINE=90316093; PubMed=1695146;
RA   Streuli M., Krueger N.X., Thai T., Tang M., Saito H.;
RT   "Distinct functional roles of the two intracellular phosphatase like
RT   domains of the receptor-linked protein tyrosine phosphatases LCA and
RT   LAR.";
RL   EMBO J. 9:2399-2407(1990).
CC   -!- FUNCTION: IT IS POSSIBLE THAT DLAR IS A CELL ADHESION RECEPTOR.
CC       IT POSSESSES AN INTRINSIC PROTEIN TYROSINE PHOSPHATASE ACTIVITY
CC       (PTPASE).
CC   -!- FUNCTION: THE FIRST PTPASE DOMAIN HAS ENZYMATIC ACTIVITY, WHILE
CC       THE SECOND ONE SEEMS TO AFFECT THE SUBSTRATE SPECIFICITY OF THE
CC       FIRST ONE.
CC   -!- CATALYTIC ACTIVITY: Protein tyrosine phosphate + H(2)O = protein
CC       tyrosine + phosphate.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- SIMILARITY: Contains 3 immunoglobulin-like C2-type domains.
CC   -!- SIMILARITY: Contains 8 fibronectin type III domains.
CC   -!- SIMILARITY: Contains 2 protein-tyrosine phosphatase domains.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; Y00815; CAA68754.1; -.
DR   PIR; S03841; TDHULK.
DR   PDB; 1LAR; 25-APR-00.
DR   Genew; HGNC:9670; PTPRF.
DR   MIM; 179590; -.
DR   GO; GO:0005887; C:integral to plasma membrane; TAS.
DR   GO; GO:0005001; F:transmembrane receptor protein tyrosine pho. . .; TAS.
DR   GO; GO:0007155; P:cell adhesion; TAS.
DR   GO; GO:0007185; P:transmembrane receptor protein tyrosine pho. . .; TAS.
DR   InterPro; IPR003961; FN_III.
DR   InterPro; IPR003962; FnIII_subd.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR000387; TYR_phosphatase.
DR   InterPro; IPR000242; Tyr_PP.
DR   Pfam; PF00041; fn3; 7.
DR   Pfam; PF00047; ig; 3.
DR   Pfam; PF00102; Y_phosphatase; 2.
DR   PRINTS; PR00014; FNTYPEIII.
DR   PRINTS; PR00700; PRTYPHPHTASE.
DR   SMART; SM00060; FN3; 4.
DR   SMART; SM00408; IGc2; 3.
DR   SMART; SM00194; PTPc; 2.
DR   PROSITE; PS50835; IG_LIKE; 3.
DR   PROSITE; PS00383; TYR_PHOSPHATASE_1; 2.
DR   PROSITE; PS50056; TYR_PHOSPHATASE_2; 2.
DR   PROSITE; PS50055; TYR_PHOSPHATASE_PTP; 2.
KW   Hydrolase; Receptor; Glycoprotein; Signal; Transmembrane;
KW   Cell adhesion; Immunoglobulin domain; Repeat; 3D-structure.
FT   SIGNAL        1     16       POTENTIAL.
FT   CHAIN        17   1897       LAR PROTEIN.
FT   DOMAIN       17   1250       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM   1251   1274       POTENTIAL.
FT   DOMAIN     1275   1897       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       23    113       IG-LIKE C2-TYPE 1.
FT   DOMAIN      125    214       IG-LIKE C2-TYPE 2.
FT   DOMAIN      222    304       IG-LIKE C2-TYPE 3.
FT   DOMAIN     1360   1606       PROTEIN-TYROSINE PHOSPHATASE 1.
FT   DOMAIN     1649   1897       PROTEIN-TYROSINE PHOSPHATASE 2.
FT   ACT_SITE   1538   1538       BY SIMILARITY.
FT   ACT_SITE   1829   1829       BY SIMILARITY.
FT   CARBOHYD    107    107       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    240    240       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    285    285       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    711    711       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    956    956       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   MUTAGEN    1538   1538       C->S: LOSS OF ACTIVITY.
SQ   SEQUENCE   1897 AA;  211844 MW;  439850F1D5C031FF CRC64;

  Query Match             10.3%;  Score 156;  DB 1;  Length 1897;
```

```
  Best Local Similarity   25.8%;  Pred. No. 5.3e-05;
  Matches   59;  Conservative   35;  Mismatches   89;  Indels   46;  Gaps   10;

Qy         11 LLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKT---PKKTVXSRLEWKKLG 67
              |::|  :  | |  |      |:||   | :    |   |:    ||     |: | | |
Db          8 LVMLGLVAGAHGDSKPVFIKVPEDQ---TGLSGGVASFVCQATGEPK----PRITWMKKG 60

Qy         68 RSVSFVYYQQTLQGDFKNRAEMIDFN------IRIKNV-TRSDAGKYRCEVSAPSEQGQN 120
              : ||               | |:|:|:      :||: :  : |   | |  :    :
Db         61 KKVS-----------SQRFEVIEFDDGAGSVLRIQPLRVQRDEAIYECTATNSLGEINT 108

Qy        121 LEEDTVTLEVLVAPAVPSCE------VPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIR 174
               : :|  |  : |  || :      |   | : |::   |    ||| || :|||| :
Db        109 SAKLSVLEEEQLPPGFPSIDMGPQLKVVEKARTATML---CA-AGGNPDPEISWFKDFLP 164

Qy        175 LLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYR 223
              :       :|::     ::| ||  :  : | |:| | | || | |
Db        165 V-------DPATSNGRIKQLRSGALQIESSEESDQGKYECVATNSAGTR 206


Search completed: December  9, 2003, 17:11:45
Job time : 11.8641 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:08:46 ; Search time 32.1882 Seconds
(without alignments)
2389.068 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 1521
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 830525

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1215	79.9	298	11	Q9JI59	Q9ji59 mus musculu
2	1212	79.7	298	11	Q8CE95	Q8ce95 mus musculu
3	1212	79.7	298	11	Q8C5K9	Q8c5k9 mus musculu
4	507.5	33.4	181	11	Q9CWD9	Q9cwd9 mus musculu
5	499	32.8	310	11	Q9D8B7	Q9d8b7 mus musculu
6	499	32.8	310	11	Q9EPK4	Q9epk4 mus musculu
7	496	32.6	310	11	Q9D1M9	Q9d1m9 mus musculu
8	481	31.6	310	4	Q9BX67	Q9bx67 homo sapien
9	481	31.6	355	4	Q8WWL8	Q8wwl8 homo sapien
10	480	31.6	309	4	Q96FL1	Q96fl1 homo sapien
11	421	27.7	300	11	Q8VC39	Q8vc39 mus musculu
12	409.5	26.9	300	11	Q9JHY1	Q9jhy1 rattus norv
13	393.5	25.9	259	4	Q9Y5B2	Q9y5b2 homo sapien
14	315.5	20.7	173	11	Q9JKD5	Q9jkd5 rattus norv
15	227	14.9	318	13	Q91664	Q91664 xenopus lae
16	225	14.8	335	13	Q9PWR4	Q9pwr4 gallus gall
17	224	14.7	335	13	Q9YGH1	Q9ygh1 gallus gall
18	221	14.5	319	11	Q922D5	Q922d5 mus musculu
19	219	14.4	319	11	Q9JKA5	Q9jka5 mus musculu
20	219	14.4	335	13	Q9YGV5	Q9ygv5 gallus gall
21	217	14.3	181	13	Q91665	Q91665 xenopus lae
22	210	13.8	259	4	O95532	O95532 homo sapien
23	205.5	13.5	319	6	Q9TU80	Q9tu80 canis famil
24	202	13.3	390	4	Q96T50	Q96t50 homo sapien
25	202	13.3	390	4	Q96AP7	Q96ap7 homo sapien
26	201.5	13.2	365	6	Q8WMV3	Q8wmv3 bos taurus
27	201.5	13.2	394	11	Q925F2	Q925f2 mus musculu
28	197	13.0	407	11	Q9D2J4	Q9d2j4 mus musculu
29	195.5	12.9	344	4	Q9UKV4	Q9ukv4 homo sapien
30	195	12.8	390	6	Q95KI3	Q95ki3 macaca fasc
31	194	12.8	372	13	Q90Y50	Q90y50 brachydanio
32	191	12.6	319	6	Q9TU79	Q9tu79 sus scrofa
33	188	12.4	430	4	Q8N4F1	Q8n4f1 homo sapien
34	186	12.2	773	5	Q8IRS5	Q8irs5 drosophila
35	183	12.0	300	11	Q9DA22	Q9da22 mus musculu
36	183	12.0	300	11	Q9D9J0	Q9d9j0 mus musculu
37	180	11.8	352	11	Q91W66	Q91w66 mus musculu
38	180	11.8	365	11	Q9DBJ8	Q9dbj8 mus musculu
39	179.5	11.8	304	11	Q9CVA4	Q9cva4 mus musculu
40	179.5	11.8	323	4	Q8NDD2	Q8ndd2 homo sapien
41	177	11.6	284	4	Q9NX42	Q9nx42 homo sapien
42	177	11.6	325	4	O95791	O95791 homo sapien
43	177	11.6	327	4	Q96IQ7	Q96iq7 homo sapien
44	177	11.6	344	11	Q9R067	Q9r067 rattus norv
45	177	11.6	358	11	Q9R066	Q9r066 rattus norv

ALIGNMENTS

RESULT 1
Q9JI59
ID Q9JI59 PRELIMINARY; PRT; 298 AA.
AC Q9JI59;
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequenze update)
DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE Vascular endothelial junction-associated molecule (Junctional adhesion
DE molecule-3) (2410030G21Rik protein).
GN JCAM3 OR JCAM2 OR JAM-3 OR 2410030G21RIK.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J;
RX MEDLINE=20317114; PubMed=10779521;
RA Palmeri D., van Zante A., Huang C.-C., Hemmerich S., Rosen S.D.;
RT "Vascular Endothelial Junction-associated Molecule, a Novel Member of
RT the Immunoglobulin Superfamily, Is Localized to Intercellular
RT Boundaries of Endothelial Cells.";
RL J. Biol. Chem. 275:19139-19145(2000).
RN [2]
RP SEQUENCE FROM N.A.
RX PubMed=11036763;
RA Aurrand-Lions M.A., Duncan L., Du Pasquier L., Imhof B.A.;
RT "Cloning of JAM-2 and JAM-3: an Emerging Junctional Adhesion Molecular
RT Family?";
RL Curr. Top. Microbiol. Immunol. 251:91-98(2000).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J; TISSUE=Embryo, and Embryonic stem cells;
RX MEDLINE=21085660; PubMed=11217851;
RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

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RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
DR   EMBL; AF255911; AAF81224.1; -.
DR   EMBL; AJ291757; CAC20699.1; -.
DR   EMBL; AK013914; BAB29053.1; -.
DR   EMBL; AK010616; BAB27064.1; -.
DR   MGD; MGI:1933820; Jcam2.
DR   MGD; MGI:1933825; Jcam3.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   PROSITE; PS50835; IG_LIKE; 2.
SQ   SEQUENCE   298 AA;  33047 MW;  1124E0F07E6CF751 CRC64;

  Query Match             79.9%;  Score 1215;  DB 11;  Length 298;
  Best Local Similarity   78.6%;  Pred. No. 1.9e-104;
  Matches  235;  Conservative   25;  Mismatches   37;  Indels    2;  Gaps    2;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKD-QQVVTAVXYQEAILACKTPKKTVXS 59
              |||  :  |:|||| ||:||| |||| |||| || :| || : :||||||||||||  |
Db          1 MARSPQGLLMLLLLHYLIVALDYHKANGFSASKDHRQEVTVIEFQEAILACKTPKKTTSS 60

Qy         60 RLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQ 119
              ||||||:|: || ||||| |||||:|||||||||||||||||||:||||||||:||||
Db         61 RLEWKKVGQGVSLVYYQQALQGDFKDRAEMIDFNIRIKNVTRSDAGEYRCEVSAPTEQGQ 120

Qy        120 NLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENP 179
              ||:|| | |||||||||:||||:| ::|:|||||||||||||||| |||||  || ||
Db        121 NLQEDKVMLEVLVAPAVPACEVPTSVMTGSVVELRCQDKEGNPAPEYIWFKDGTSLLGNP 180

Qy        180 RLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISG 239
              : |    |||||||||:| |||| :||:|:||| ||||||||:|||||||||| |||||
Db        181 K-GGTHNNSSYTMNTKSGILQFNMISKMDSGEYYCEARNSVGHRRCPGKRMQVDVLNISG 239

Qy        240 IIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||| ||||| |||||||| |||||||||||||||| : :|| ||||||||||||||||
Db        240 IIATVVVVAFVISVCGLGTCYAQRKGYFSKETSFQKGSPASKVTTMSENDFKHTKSFII 298


RESULT 2
Q8CE95
ID   Q8CE95      PRELIMINARY;      PRT;   298 AA.
AC   Q8CE95;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junction cell adhesion molecule 2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Skin;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK028757; BAC26102.1; -.
SQ   SEQUENCE   298 AA;  33079 MW;  CB8227EC13D349A3 CRC64;

  Query Match             79.7%;  Score 1212;  DB 11;  Length 298;
  Best Local Similarity   78.3%;  Pred. No. 3.5e-104;
  Matches  234;  Conservative   26;  Mismatches   37;  Indels    2;  Gaps    2;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKD-QQVVTAVXYQEAILACKTPKKTVXS 59
              |||  :  |:|||| ||:||| |||| |||| || :| || : :||||||||||||  |
Db          1 MARSPQGLLMLLLLHYLIVALDYHKANGFSASKDHRQEVTVIEFQEAILACKTPKKTTSS 60

Qy         60 RLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQ 119
              ||||||:|: || ||||| |||||:|||||||||||||||||||:||||||||:||||
Db         61 RLEWKKVGQGVSLVYYQQALQGDFKDRAEMIDFNIRIKNVTRSDAGEYRCEVSAPTEQGQ 120

Qy        120 NLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENP 179
              ||:|| | |||||||||:||||:| ::|:|||||||||||||||| |||||  || ||
Db        121 NLQEDKVMLEVLVAPAVPACEVPTSVMTGSVVELRCQDKEGNPAPEYIWFKDGTSLLGNP 180

Qy        180 RLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISG 239
              : |    |||||||||:| |||| :||:|:||| ||||||||:|||||||||| |||||
Db        181 K-GGTHNNSSYTMNTKSGILQFNMISKMDSGEYYCEARNSVGHRRCPGKRMQVDVLNISG 239

Qy        240 IIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||| ||||| |||||||| |||||||||||||||| : :|| ||||||||||||||||
Db        240 IIATVVVVAFVISVCGLGTCYAQRKGYFSKETSFQKGSPASKVTTMSENDFKHTKSFII 298


RESULT 3
Q8C5K9
ID   Q8C5K9      PRELIMINARY;      PRT;   298 AA.
AC   Q8C5K9;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junction cell adhesion molecule 2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Medulla oblongata;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK078128; BAC37139.1; -.
SQ   SEQUENCE   298 AA;  33182 MW;  1131F0BFD89CEB51 CRC64;

  Query Match             79.7%;  Score 1212;  DB 11;  Length 298;
  Best Local Similarity   78.6%;  Pred. No. 3.5e-104;
  Matches  235;  Conservative   25;  Mismatches   37;  Indels    2;  Gaps    2;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKD-QQVVTAVXYQEAILACKTPKKTVXS 59
              |||  :  |:|||| ||:||| |||| |||| || :| || : :||||||||||||  |
Db          1 MARSPQGLLMLLLLHYLIVALDYHKANGFSASKDHRQEVTVIEFQEAILACKTPKKTTSS 60

Qy         60 RLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQ 119
              ||||||:|: || ||||| |||||:|||||||||||||||||||:||||||||:||||
Db         61 RLEWKKVGQGVSLVYYQQALQGDFKDRAEMIDFNIRIKNVTRSDAGEYRCEVSAPTEQGQ 120

Qy        120 NLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENP 179
              ||:|| | |||||||||:||||:| ::|:|||||||||||||||| |||||  || ||
Db        121 NLQEDKVMLEVLVAPAVPACEVPTSVMTGSVVELRCQDKEGNPAPEYIWFKDGHSLLGNP 180

Qy        180 RLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISG 239
              : |    |||||||||:| |||| :||:|:||| ||||||||:|||||||||| |||||
Db        181 K-GRTHNNSSYTMNTKSGILQFNMISKMDSGEYYCEARNSVGHRRCPGKRMQVDVLNISG 239

Qy        240 IIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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                    ||| ||||| |||||||| |||||||||||||||| : :|| ||||||||||||||||
Db        240 IIATVVVVAFVISVCGLGTCYAQRKGYFSKETSFQKGSPASKVTTMSENDFKHTKSFII 298


RESULT 4
Q9CWD9
ID   Q9CWD9      PRELIMINARY;      PRT;   181 AA.
AC   Q9CWD9;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   2410167M24Rik protein (Junction cell adhesion molecule 2).
GN   JCAM2 OR 2410167M24RIK.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Embryonic stem cells;
RX   MEDLINE=21085660; PubMed=11217851;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK010826; BAB27208.1; -.
DR   EMBL; AK045095; BAC32219.1; -.
DR   MGD; MGI:1933820; Jcam2.
DR   InterPro; IPR003599; Ig.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00409; IG; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
SQ   SEQUENCE   181 AA;  20330 MW;  603B6114FBB11AEB CRC64;

  Query Match             33.4%;  Score 507.5;  DB 11;  Length 181;
  Best Local Similarity   76.5%;  Pred. No. 4.2e-39;
  Matches  101;  Conservative   12;  Mismatches   18;  Indels    1;  Gaps    1;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKD-QQVVTAVXYQEAILACKTPKKTVXS 59
              |||   :  |:|||| ||:||| |||| |||| || :| || : :|||||||||||||  |
Db          1 MARSPQGLLMLLLLHYLIVALDYHKANGFSASKDHRQEVTVIEFQEAILACKTPKKTTSS 60

Qy         60 RLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQ 119
              ||||||:|: || ||||| |||||:|||||||||||||||||||:|||||||:|||
Db         61 RLEWKKVGQGVSLVYYQQALQGDFKDRAEMIDFNIRIKNVTRSDAGEYRCEVSAPTEQGQ 120

Qy        120 NLEEDTVTLEVL 131
              ||:|| | ||||
Db        121 NLQEDKVMLEVL 132


RESULT 5
Q9D8B7
ID   Q9D8B7      PRELIMINARY;      PRT;   310 AA.
AC   Q9D8B7;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   1110002N23Rik protein.
GN   JCAM3 OR JCAM2 OR 1110002N23RIK.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Small intestine;
RX   MEDLINE=21085660; PubMed=11217851;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
DR   EMBL; AK008187; BAB25519.1; -.
DR   MGD; MGI:1933820; Jcam2.
DR   MGD; MGI:1933825; Jcam3.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain.
SQ   SEQUENCE   310 AA;  34855 MW;  C74884EABE234680 CRC64;

  Query Match             32.8%;  Score 499;  DB 11;  Length 310;
  Best Local Similarity   37.0%;  Pred. No. 5.4e-38;
  Matches  117;  Conservative   60;  Mismatches  113;  Indels   26;  Gaps    9;

Qy          1 MARRSRHRL--------LLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILAC-K 51
              ::|| | ||        |||| |  ::     :|   :    ||    ::   |:|
Db          3 LSRRLRLRLYARLPDFFLLLLFRGCMI-----EAVNLKSSNRNPVVQ--EFESVELSCII 55

Qy         52 TPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNVTRSDAGKYRC 109
              |  :|   |:||||:     ::||:   :|||   | ::    ::|| ||||||:  |||
Db         56 TDSQTSDPRIEWKKIQDGQTTYVYFDNKIQGDLAGRTDVFGKTSLRIWNVTRSDSAIYRC 115

Qy        110 EVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWF 169
              || | ::: : ::| |: | | | |  | | :|::   |     |:||: || | | | |:
Db        116 EVVALNDR-KEVDEITIELIVQVKPVTPVCRIPAAVPVGKTATLQCQESEGYPRPHYNWY 174

Qy        170 KDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKR 229
              :: : |  : |   :  |||: :|::|||| || | | |:|:| | | |  | || |:
Db        175 RNDVPLPTDSRANPRFQNSSFHVNSETGTLVFNAVHKDDSGQYYCIASNDAGAARCEGQD 234
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Qy        230 MQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKE-----TSFQKSNSSSKA 282
              |:| ||||:||| |:|| :|::|  :|:| | |:| |  ||:      |  | :  :
Db        235 MEVYDLNIAGIIGGVLVVLIVLAVITMGICCAYRRGCFISSKQDGESYKSPGKHDGVNYI 294

Qy        283 TTMSENDFKHTKSFII 298
                |  | ||:|  ||:|
Db        295 RTSEEGDFRHKSSFVI 310


RESULT 6
Q9EPK4
ID   Q9EPK4      PRELIMINARY;      PRT;   310 AA.
AC   Q9EPK4;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junctional adhesion molecule-2, JAM-2 (1110002N23Rik protein)
DE   (Junction cell adhesion molecule 3).
GN   JCAM3 OR JCAM2 OR JAM-2 OR 1110002N23RIK.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   PubMed=11036763;
RA   Aurrand-Lions M.A., Duncan L., Du Pasquier L., Imhof B.A.;
RT   "Cloning of JAM-2 and JAM-3: an Emerging Junctional Adhesion Molecular
RT   Family?";
RL   Curr. Top. Microbiol. Immunol. 251:91-98(2000).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Embryo;
RX   MEDLINE=21085660; PubMed=11217851;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Kidney;
RA   Strausberg R.;
RL   Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Mesonephros;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AJ300304; CAC20704.1; -.
DR   EMBL; AK013156; BAB28683.1; -.
DR   EMBL; BC024357; AAH24357.1; -.
DR   EMBL; AK032833; BAC28049.1; -.
DR   MGD; MGI:1933820; Jcam2.
DR   MGD; MGI:1933825; Jcam3.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain.
SQ   SEQUENCE   310 AA;  34837 MW;  4B92BCB51D0A4B0A CRC64;

  Query Match            32.8%;  Score 499;  DB 11;  Length 310;
  Best Local Similarity  37.0%;  Pred. No. 5.4e-38;
  Matches  117;  Conservative   61;  Mismatches  112;  Indels   26;  Gaps    9;

Qy          1 MARRSRHRL--------LLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILAC-K 51
              ::|| | ||         |||| |  ::     :|    :      ||    ::   |:|
Db          3 LSRRLRLRLYARLPDFFLLLLFRGCMI-----EAVNLKSSNRNPVVH--EFESVELSCII 55

Qy         52 TPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNVTRSDAGKYRC 109
              |  :|   |:||||:     ::||:  :|||   | ::    ::|| ||||||:  |||
Db         56 TDSQTSDPRIEWKKIQDGQTTYVYFDNKIQGDLAGRTDVFGKTSLRIWNVTRSDSAIYRC 115

Qy        110 EVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWF 169
              || | ::: : ::| |: | | | |  | | :|::   |    |:||: || | | |:|:
Db        116 EVVALNDR-KEVDEITIELIVQVKPVTPVCRIPAAVPVGKTATLQCQESEGYPRPHYSWY 174

Qy        170 KDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKR 229
              :: : |  : |   :  |||: :|::|||| || | | |:|:| | | |  | || |:
Db        175 RNDVPLPTDSRANPRFQNSSFHVNSETGTLVFNAVHKDDSGQYYCIASNDAGAARCEGQD 234

Qy        230 MQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKE-----TSFQKSNSSSKA 282
              |:| ||||:|||  |:|| :|::|  :|:| | |:| |  ||:      |  | :  :
Db        235 MEVYDLNIAGIIGGVLVVLIVLAVITMGICCAYRRGCFISSKQDGESYKSPGKHDGVNYI 294

Qy        283 TTMSENDFKHTKSFII 298
                |  | ||:|  ||:|
Db        295 RTSEEGDFRHKSSFVI 310


RESULT 7
Q9D1M9
ID   Q9D1M9      PRELIMINARY;      PRT;   310 AA.
AC   Q9D1M9;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   1110002N23Rik protein.
GN   JCAM3 OR JCAM2 OR 1110002N23RIK.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Embryo;
RX   MEDLINE=21085660; PubMed=11217851;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
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RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
DR   EMBL; AK003326; BAB22715.1; -.
DR   MGD; MGI:1933820; Jcam2.
DR   MGD; MGI:1933825; Jcam3.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain.
SQ   SEQUENCE   310 AA;  34819 MW;  6692BCAD68EA4B1D CRC64;

  Query Match             32.6%;  Score 496;  DB 11;  Length 310;
  Best Local Similarity   37.0%;  Pred. No. 1e-37;
  Matches  117;  Conservative   61;  Mismatches  112;  Indels   26;  Gaps    9;

Qy          1 MARRSRHRL--------LLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILAC-K 51
              ::|| | ||         |||| |  ::     :|    :      ||    ::   |:|
Db          3 LSRRLRLRLYARLPDFFLLLLFRGCMI-----EAVNLKSSNRNPVVH--EFESVELSCII 55

Qy         52 TPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNVTRSDAGKYRC 109
              |  :|   |:||||:     ::||:   :|||   | ::    ::|| ||||||:  |||
Db         56 TDSQTSDPRIEWKKIQDGQTTYVYFDNKIQGDLAGRTDVFGKTSLRIWNVTRSDSAIYRC 115

Qy        110 EVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWF 169
              || | ::: : ::| |: | | | |  | | :|::   |    |:||: || | | |:|:
Db        116 EVVALNDR-KEVDEITIELIVQVKPVTPVCRIPAAVPVGKTATLQCQESEGYPRPHYSWY 174

Qy        170 KDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKR 229
              :: : |  : |   :  |||: :|::|||| || | | |:|:| | | |  |  || |:
Db        175 RNDVPLPTDSRANPRFQNSSFHVNSETGTLVFNAVHKDDSGQYYCIASNDAGAARCEGQD 234

Qy        230 MQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKE-----TSFQKSNSSSKA 282
              |:| ||||:|||  |:|| :|::|  :|:| | |:|  |:      |  | :  :
Db        235 MEVYDLNIAGIIGGVLVVLIVLAVITMGICCAYRRGCFISSKQDGESYKSPGKHDGVNYI 294

Qy        283 TTMSENDFKHTKSFII 298
              |  | ||||  :|:|
Db        295 RTSEEGDFKHKIAFVI 310


RESULT 8
Q9BX67
ID   Q9BX67      PRELIMINARY;      PRT;   310 AA.
AC   Q9BX67;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junctional adhesion molecule 3 precursor (Junctional adhesion
DE   molecule-2) (Junctional adhesional molecule-3) (Hypothetical protein
DE   FLJ90288) (Hypothetical protein FLJ90828).
GN   JAM-2 OR JAM3.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RA   Cunningham S.A., Arrate M.P., Tran T.M.;
RT   "Cloning of Human Junctional Adhesion Molecule 3.";
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RA   Aurrand-Lions M.A., Johnson-leger C., Wong C., DuPasquier L.;
RT   "Heterogeneity of endothelial junctions is reflected by differential
RT   expression and specific subcellular localization of the three JAM
RT   family members.";
RL   Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A.
RA   Aurrand-Lions M.A., Johnson-leger C., Lamagna C., Ozaki H., Kita T.;
RT   "Junctional adhesion molecules (JAMs) and interendothelial
RT   junctions.";
RL   Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   SEQUENCE FROM N.A.
RA   Sachs U.J.H., Eva O., Berghoefer H., Santoso S.;
RT   "Characterization of Junctional Adhesional Molecule-3 on Human
RT   Platelets: A New Member of Immunoglobulin Superfamily.";
RL   Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
RN   [5]
RP   SEQUENCE FROM N.A.
RA   Isogai T., Ota T., Nishikawa T., Hayashi K., Otsuki T., Sugiyama T.,
RA   Suzuki Y., Nagai K., Sugano S., Ishii S., Kawai-Hio Y., Saito K.,
RA   Yamamoto J., Wakamatsu A., Nakamura Y., Kojima S., Nagahari K.,
RA   Masuho Y., Ono T., Okano K., Yoshikawa Y., Aotsuka S., Sasaki N.,
RA   Hattori A., Okumura K., Iwayanagi T., Ninomiya K.;
RT   "NEDO human cDNA sequencing project.";
RL   Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF356518; AAK27221.1; -.
DR   EMBL; AJ344431; CAC69845.1; -.
DR   EMBL; AF448478; AAM20925.1; -.
DR   EMBL; AK074769; BAC11195.1; -.
DR   EMBL; AK075309; BAC11538.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Hypothetical protein; Signal.
FT   SIGNAL        1     30       POTENTIAL.
SQ   SEQUENCE   310 AA;  35020 MW;  CE39ADF33EA1DAB9 CRC64;

  Query Match             31.6%;  Score 481;  DB 4;  Length 310;
  Best Local Similarity   35.8%;  Pred. No. 2.5e-36;
  Matches  114;  Conservative   60;  Mismatches  116;  Indels   28;  Gaps   10;

Qy          1 MARRSRHRL----------LLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILAC 50
              || |   ||          |||| |  ::      |    :     ||    ::   |:|
Db          1 MALRRPPRLRLCARLPDFFLLLLFRGCLIG-----AVNLKSSNRTPVVQ--EFESVELSC 53

Qy         51 -KTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNVTRSDAGKY 107
               |  :|   |:||||:     ::|::   :|||   |||::   :::| |||| |: |
Db         54 IITDSQTSDPRIEWKKIQDEQTTYVFFDNKIQGDLAGRAEILGKTSLKIWNVTRRDSALY 113

Qy        108 RCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYT 167
              |||| | ::: : ::|  : | | | |  | | || :   | :  | ||: ||:| | |:
Db        114 RCEVVARNDR-KEIDEIVIELTVQVKPVTPVCRVPKAVPVGKMATLHCQESEGHPRPHYS 172

Qy        168 WFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPG 227
              |::: : |  : |   :  |||: :|::|||| |  | | |:|:| | | |  |  ||
Db        173 WYRNDVPLPTDSRANPRFRNSSFHLNSETGTLVFTAVHKDDSGQYYCIASNDAGSARCEE 232

Qy        228 KRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKE--TSFQ---KSNSSS 280
              : |:| |||| |||  |:||  |:::  ||:| | |:|||  :|:   |::   | :  :
Db        233 QEMEVYDLNIGGIIGGVLVVLAVLALITLGICCAYRRGYFINNKQDGESYKNPGKPDGVN 292

Qy        281 KATTMSENDFKHTKSFII 298
                |  | ||:|  ||:|
Db        293 YIRTDEEGDFRHKSSFVI 310


RESULT 9
Q8WWL8
ID   Q8WWL8      PRELIMINARY;      PRT;   355 AA.
AC   Q8WWL8;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junction adhesion molecule 3.
GN   JAM3.
OS   Homo sapiens (Human).
```

```
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Hearn T.;
RL   Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RA   Phillips H.M.;
RT   "Narrowing the critical region within 11q24-qter for hypoplastic left
RT   heart and identification of a candidate gene, JAM3, expressed during
RT   cardiogenesis.";
RL   Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ416101; CAC94776.1; -.
DR   Genew; HGNC:15532; JAM3.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain.
FT   CHAIN        76    355       JUNCTION ADHESION MOLECULE 3.
SQ   SEQUENCE   355 AA;  39602 MW;  8B1577DEA7B1D4F8 CRC64;

  Query Match             31.6%;  Score 481;  DB 4;  Length 355;
  Best Local Similarity   35.8%;  Pred. No. 3e-36;
  Matches  114;  Conservative   60;  Mismatches  116;  Indels   28;  Gaps   10;

Qy          1 MARRSRHRL----------LLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILAC 50
              || |   ||          |||| |  ::      |    :     ||    ::   |:|
Db         46 MALRRPPRLRLCARLPDFFLLLLFRGCLIG-----AVNLKSSNRTPVVQ--EFESVELSC 98

Qy         51 -KTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNVTRSDAGKY 107
               |  :|   |:||||:    ::|::   :|||   |||::   :::| |||| |:  |
Db         99 IITDSQTSDPRIEWKKIQDEQTTYVFFDNKIQGDLAGRAEILGKTSLKIWNVTRRDSALY 158

Qy        108 RCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYT 167
              |||| | ::: : ::|  : | | | |  | | || :   | :  | ||: ||:| | |:
Db        159 RCEVVARNDR-KEIDEIVIELTVQVKPVTPVCRVPKAVPVGKMATLHCQESEGHPRPHYS 217

Qy        168 WFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPG 227
              |::: : |  : |   :  |||: :|::|||| |  | | |:|:| | | |  |  ||
Db        218 WYRNDVPLPTDSRANPRFRNSSFHLNSETGTLVFTAVHKDDSGQYYCIASNDAGSARCEE 277

Qy        228 KRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKE--TSFQ---KSNSSS 280
              : |:| |||| |||  |:||  |:::  ||:| | |:|||  :|:   |::   | :  :
Db        278 QEMEVYDLNIGGIIGGVLVVLAVLALITLGICCAYRRGYFINNKQDGESYKNPGKPDGVN 337

Qy        281 KATTMSENDFKHTKSFII 298
                |  | ||:|  ||:|
Db        338 YIRTDEEGDFRHKSSFVI 355


RESULT 10
Q96FL1
ID   Q96FL1      PRELIMINARY;      PRT;   309 AA.
AC   Q96FL1;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Hypothetical protein (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Eye;
RA   Strausberg R.;
RL   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC010690; AAH10690.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Hypothetical protein; Immunoglobulin domain.
FT   NON_TER      1       1
SQ   SEQUENCE   309 AA;  34917 MW;  50C5B1B7872E8DF3 CRC64;

  Query Match             31.6%;  Score 480;  DB 4;  Length 309;
  Best Local Similarity   36.5%;  Pred. No. 3.1e-36;
  Matches  109;  Conservative   60;  Mismatches  112;  Indels   18;  Gaps    9;

Qy         10 LLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILAC-KTPKKTVXSRLEWKKL-G 67
              |||| |  ::      |    :     ||    ::   |:|  |  :|   |:||||:
Db         19 LLLLFRGCLIG-----AVNLKSSNRTPVVQ--EFESVELSCIITDSQTSDPRIEWKKIQD 71

Qy         68 RSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTV 126
                ::|::   :|||   |||::   :::| |||| |:  |||| | ::: : ::|  :
Db         72 EQTTYVFFDNKIQGDLAGRAEILGKTSLKIWNVTRRDSALYRCEVVARNDR-KEIDEIVI 130

Qy        127 TLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQST 186
              | | | |  | | || :   | :  | ||: ||:| | |:|::: : |  : |   :
Db        131 ELTVRVKPVTPVCRVPKAVPVGKMATLHCQESEGHPRPHYSWYRNDVPLPTDSRANPRFR 190

Qy        187 NSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVV 246
              |||: :|::|||| |  | | |:|:| | | |  |  ||  : |:| |||| |||  |:|
Db        191 NSSFHLNSETGTLVFTAVHKDDSGQYYCIASNDAGSARCEEQEMEVYDLNIGGIIGGVLV 250

Qy        247 VALVISVCGLGVCYAQRKGYF--SKE--TSFQ---KSNSSSKATTMSENDFKHTKSFII 298
              |  |::: ||:| | |:|||  :|:   |::   | :  :   |  | ||:|  ||:|
Db        251 VLAVLALITLGICCAYRRGYFINNKQDGESYKNPGKPDGVNYIRTDEEGDFRHKSSFVI 309


RESULT 11
Q8VC39
ID   Q8VC39      PRELIMINARY;      PRT;   300 AA.
AC   Q8VC39;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Hypothetical protein (Junction cell adhesion molecule1).
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Breast tumor;
RA   Strausberg R.;
RL   Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Cecum;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; BC021876; AAH21876.1; -.
DR   EMBL; AK033574; BAC28369.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Hypothetical protein.
SQ   SEQUENCE   300 AA;  32423 MW;  3CE561E8FF3B97EC CRC64;

  Query Match             27.7%;  Score 421;  DB 11;  Length 300;
```

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  Best Local Similarity   34.6%;  Pred. No. 8.9e-31;
  Matches  104;  Conservative   55;  Mismatches  130;  Indels   12;  Gaps    6;

Qy          4 RSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEW 63
              ::  :|| |    :: :|   |   ::|. | ||       |:|    |       |:||
Db          6 KAGRKLLFLFTSMILGSLVQGKGSVYTAQSDVQVPE----NESIKLTCTYSGFSSPRVEW 61

Qy         64 KKL-GRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLE 122
              | : | : : | |   :   : :|       |   :||| | |:| | ||   | |||
Db         62 KFVQGSTTALVCYNSQITAPYADRVTFSSSGITFSSVTRKDNGEYTCMVS--EEGGQNYG 119

Qy        123 EDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLG 182
              | :: | ||| |: |:  ||||   |    | | : :|:|  ||:|||||| :|
Db        120 EVSIHLTVLVPPSKPTISVPSSVTIGNRAVLTCSEHDGSPPSEYSWFKDGISMLTADAKK 179

Qy        183 SQS-TNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVG-YRRCPGKRMQVDDLNISGI 240
              :::  |||:|:: |:| | |: |:  |:||| |:|:|  |    |      |   :||: ||
Db        180 TRAFMNSSFTIDPKSGDLIFDPVTAFDSGEYYCQAQNGYGTAMRSEAAHMDAVELNVGGI 239

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYF---SKETSFQKSNSSSKATTMSENDFKHTKSFI 297
              :|||:|  ::: :   || :|  :|||    | |:  |    |: : | || :|| | ||:
Db        240 VAAVLVTLILLGLLIFGVWFAYSRGYFERTKKGTAPGKKVIYSQPSTRSEGEFKQTSSFL 299

Qy        298 I 298
              :
Db        300 V 300


RESULT 12
Q9JHY1
ID   Q9JHY1      PRELIMINARY;      PRT;   300 AA.
AC   Q9JHY1;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junctional adhesion molecule JAM.
GN   JAM.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague Dawley;
RA   Mashima H., Kojima I.;
RL   Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF276998; AAF78250.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
SQ   SEQUENCE   300 AA;  32369 MW;  45AE362A96158BFA CRC64;

  Query Match           26.9%;  Score 409.5;  DB 11;  Length 300;
  Best Local Similarity   34.3%;  Pred. No. 1e-29;
  Matches   95;  Conservative   49;  Mismatches   98;  Indels   35;  Gaps    6;

Qy         28 GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNR 86
              |||:|                  |:||| : | : : | |   :    : :|
Db         53 GFSSP--------------------------RVEWKFVQGSTTALVCYNNQITVPYADR 85

Qy         87 AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSAL 146
                   |   :||| | |:| | ||   : |||  | :: | ||| |: |:  :|||
Db         86 VTFSSSGITFSSVTRKDNGEYTCMVS--EDGGQNYGEVSIHLTVLVPPSKPTVSIPSSVT 143

Qy        147 SGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQS-TNSSYTMNTKTGTLQFNTVS 205
              |    | | : :|:|  ||:|||||: :|      :::  ||||||:: |:| | |: ||
Db        144 IGNRAVLTCSEHDGSPPSEYSWFKDGVPMLTADAKKTRAFINSSYTIDPKSGDLVFDPVS 203

Qy        206 KLDTGEYSCEARNSVG-YRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRK 264
               |:||| |||:|  |   |    ||:  :||: ||:|||:|  ::: :   |: :|  :
Db        204 AFDSGEYYCEAQNGYGTAMRSEAVRMEAVELNVGGIVAAVLVTLILLGLLIFGIWFAYSR 263

Qy        265 GYF---SKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              |||    | |:  |    |: :  || :|| | ||::
Db        264 GYFERTKKGTAPGKKVIYSQPSARSEGEFKQTSSFLV 300


RESULT 13
Q9Y5B2
ID   Q9Y5B2      PRELIMINARY;      PRT;   259 AA.
AC   Q9Y5B2;
DT   01-NOV-1999 (TrEMBLrel. 12, Created)
DT   01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junction adhesion molecule.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Liu Y., Nusrat A., Schnell F.J., Walsh S., Reaves T.A., Pochet M.,
RA   Foley C., Parkos C.A.;
RT   "Human junctional adhesion molecule is expressed by polarized columnar
RT   epithelia and regulates tight junction resealing.";
RL   Submitted (MAY-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF154005; AAD43794.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin domain.
SQ   SEQUENCE   259 AA;  28122 MW;  FE38521A911582D0 CRC64;

  Query Match           25.9%;  Score 393.5;  DB 4;  Length 259;
  Best Local Similarity   36.9%;  Pred. No. 2.6e-28;
  Matches   87;  Conservative   41;  Mismatches   97;  Indels   11;  Gaps    4;

Qy         69 SVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTL 128
              | ::  :      :::|   :   |  |:||| | | | | |   | | :  |  | |
Db         29 SCAYSGFSSPRAASYEDRVTFLPTGITFKSVTREDTGTYTCMVF--EEGGNSYGEVKVKL 86

Qy        129 EVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNS 188
              |||  |: |:  :|||| |    | | :::|:|  |||||||| :  ||:     :||
Db         87 IVLVPPSKPTVNIPSSATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNS 146

Qy        189 SYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVV 247
              || :|  || | |: :|  |||||||||||  |        ||:  : |:  |:|||:|
Db        147 SYVLNPTTGELVFDPLSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVT 206

Qy        248 ALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKA-----TTMSENDFKHTKSFII 298
              ::: :   |: :|  :|:| :    :|  || |      :  || :|| | ||::
Db        207 LILLGILVFGIWFAYSRGHFDRT---KKGTSSKKVIYSQPSARSEGEFKQTSSFLV 259


RESULT 14
Q9JKD5
ID   Q9JKD5      PRELIMINARY;      PRT;   173 AA.
AC   Q9JKD5;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junctional adhesion molecule (Fragment).
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Kirsch T., Wellner M., Haller H., Lippoldt A.;
RT   "Cloning of the rat junctional adhesion molecule (JAM).";
```

```
RL   Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF241261; AAF61729.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin domain.
FT   NON_TER       1       1
SQ   SEQUENCE   173 AA;  18706 MW;  3EE3ECDFA5AFB8B2 CRC64;

  Query Match             20.7%;  Score 315.5;  DB 11;  Length 173;
  Best Local Similarity   38.7%;  Pred. No. 2.6e-21;
  Matches   67;  Conservative   36;  Mismatches   65;  Indels    5;  Gaps    3;

Qy        131 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQS-TNSS 189
              || |: |:  :|||    |     | | : :|:|  ||:|||||: :|      :::  |||
Db          1 LVPPSKPTVSIPSSVTIGNRAVLTCSEHDGSPPSEYSWFKDGVPMLTADAKKTRAFINSS 60

Qy        190 YTMNTKTGTLQFNTVSKLDTGEYSCEARNSVG-YRRCPGKRMQVDDLNISGIIAAVVVVA 248
              ||:: |:| | |: ||  |:||| |||:|  |   |    ||:  :||: ||:|||:|
Db         61 YTIDPKSGDLVFDPVSAFDSGEYYCEAQNGYGTAMRSEAVRMEAVELNVGGIVAAVLVTL 120

Qy        249 LVISVCGLGVCYAQRKGYF---SKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ::: :   |: :|  :|||    | |:  |    |: :  || :|| | ||::
Db        121 ILLGLLIFGIWFAYSRGYFERTKKGTAPGKKVIYSQPSARSEGEFKQTSSFLV 173


RESULT 15
Q91664
ID   Q91664      PRELIMINARY;      PRT;   318 AA.
AC   Q91664;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   CTX.
OS   Xenopus laevis (African clawed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus.
OX   NCBI_TaxID=8355;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=ff; TISSUE=Thymus;
RX   MEDLINE=96210130; PubMed=8625968;
RA   Chretien I., Robert J., Marcuz A., Garcia-Sanz J.A., Courtet M.,
RA   Du Pasquier L.;
RT   "CTX, a novel molecule specifically expressed on the surface of
RT   cortical thymocytes in Xenopus.";
RL   Eur. J. Immunol. 26:780-791(1996).
DR   EMBL; U43330; AAC59899.1; -.
DR   InterPro; IPR003599; Ig.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00409; IG; 2.
DR   PROSITE; PS50835; IG_LIKE; 2.
SQ   SEQUENCE   318 AA;  34429 MW;  6231D24B0B806C09 CRC64;

  Query Match             14.9%;  Score 227;  DB 13;  Length 318;
  Best Local Similarity   29.1%;  Pred. No. 9.6e-13;
  Matches   77;  Conservative   39;  Mismatches  107;  Indels   42;  Gaps   14;

Qy          9 LLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILAC-----KTPKKTVXSRLEW 63
              || : |   : || :        |    ::     | | | |       |  :   ::|
Db          4 LLFITLGLSLTALSHCVQVTIQNP----IINVTSGQNATLYCTYILNNQNKNNLV--IQW 57

Qy         64 -----KKLGRSVSFVYYQ-QTLQG-DFKNR--AEMIDFN--IRIKNVTRSDAGKYRCEV- 111
                   |   :   | |   |:| |  :|||  | |   |  | | |:   | | | |||
Db         58 NIFQAKSQNQETVFFYQNGQSLSGPSYKNRVTAAMSPGNATITISNMQSQDTGIYTCEVL 117

Qy        112 SAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKD 171
              : |   ||      : | ||| |:|| | :  :  :|  : | |  :|| | | |:| :
Db        118 NLPESSGQG----KILLTVLVPPSVPHCSIRGAVETGHFISLLCYSEEGMPRPIYSWNR- 172

Qy        172 GIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCP----- 226
                  :||  |  :|| |   || : |:|    ::  : | | | | |::|   |
Db        173 ----VENGLL--KSTPSQ--MNQQKGSLIIGNLTDFEEGYYRCTASNNLGNATCELNLHT 224

Qy        227 -GKRMQVDDLNISGIIAAVVVVALV 250
               |:   :    | |::|| :::|:|
Db        225 GGEGGVIAAAVIGGLLAAAIIIAIV 249


Search completed: December  9, 2003, 17:13:00
Job time : 35.1882 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:26:03 ; Search time 44.6481 Seconds
(without alignments)
1059.408 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 298
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 1107863 seqs, 158726573 residues

Word size : 30

Total number of hits satisfying chosen parameters: 40

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : A_Geneseq_19Jun03:*
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2: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	296	99.3	298	19	AAW75220	Human secreted pro
2	296	99.3	298	23	AAE26983	Human gene 25 enco
3	296	99.3	298	23	AAE27121	Human gene 25 enco
4	296	99.3	298	24	ABR47926	Human secreted pro
5	296	99.3	298	24	ABU64994	Human secreted pro
6	296	99.3	298	24	ABR00172	Human gene 162 enc
7	240	80.5	298	19	AAW85457	Secreted protein e
8	240	80.5	298	22	AAU00512	Human junctional a
9	240	80.5	298	23	ABP61801	Human polypeptide
10	240	80.5	298	24	AAO16452	Human junctional a
11	230	77.2	312	20	AAY08060	Human PRO245 prote
12	230	77.2	312	20	AAY23324	A33 related antige
13	230	77.2	312	20	AAY13354	Amino acid sequenc
14	230	77.2	312	21	AAB33421	Human PRO245 prote
15	230	77.2	312	21	AAB24401	Human PRO245 prote
16	230	77.2	312	21	AAY70668	Human PRO245 prote
17	230	77.2	312	22	AAU12339	Human PRO245 polyp
18	230	77.2	312	22	AAU00821	Human immune respo
19	230	77.2	312	22	AAB80222	Human PRO245 prote
20	230	77.2	312	22	AAB50904	Human PRO245 prote
21	230	77.2	312	22	AAB53081	Human angiogenesis
22	230	77.2	312	24	ABU69632	Novel human secret
23	230	77.2	312	24	ABU71455	Human PRO polypept
24	230	77.2	312	24	ABU71901	Human secreted/tra
25	230	77.2	312	24	ABU07738	Human A-33 related
26	230	77.2	312	24	ABU66737	Human PRO polypept
27	230	77.2	312	24	ABU67013	Human secreted/tra
28	230	77.2	312	24	ABU67355	Human secreted pro
29	230	77.2	312	24	ABU59818	Novel secreted and
30	230	77.2	312	24	ABU64509	Human secreted/tra
31	230	77.2	312	24	ABU54357	Human secreted/tra
32	222	74.5	222	22	AAM41947	Human polypeptide
33	215	72.1	215	22	AAB70500	Angiogenesis prote
34	183	61.4	213	21	AAB27277	Human confluency r
35	166	55.7	303	22	AAM23693	Human EST encoded
36	107	35.9	107	22	AAM40161	Human polypeptide
37	89	29.9	388	22	ABG22341	Novel human diagno
38	73	24.5	140	22	ABG22338	Novel human diagno
39	69	23.2	69	22	ABG22339	Novel human diagno
40	51	17.1	66	22	ABG22340	Novel human diagno

ALIGNMENTS

RESULT 1
AAW75220
ID AAW75220 standard; Protein; 298 AA.
XX
AC AAW75220;
XX
DT 29-JAN-1999 (first entry)
XX
DE Human secreted protein encoded by gene 25 clone HTEEB42.
XX
KW Human; secreted protein; fusion protein; gene therapy; protein therapy;
KW diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia;
KW developmental abnormality; foetal deficiency; blood; allergy; renal;
KW immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;
KW inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS;
KW cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;
KW osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;
KW endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 42
FT /label= unknown
FT Misc-difference 58
FT /label= unknown
XX
PN WO9840483-A2.
XX
PD 17-SEP-1998.
XX
PF 12-MAR-1998; 98WO-US04858.
XX
PR 19-DEC-1997; 97US-0068368.
PR 14-MAR-1997; 97US-0040710.
PR 14-MAR-1997; 97US-0040762.
PR 30-MAY-1997; 97US-0048100.

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PR   30-MAY-1997;   97US-0048189.
PR   30-MAY-1997;   97US-0048357.
PR   30-MAY-1997;   97US-0050934.
PR   06-JUN-1997;   97US-0048970.
PR   05-SEP-1997;   97US-0057765.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Ferrie AM,  Fischer CL,  Gentz RL,  Greene JM,  Kyaw H;
PI   Li H,  Li Y,  Moore PA, Rosen CA,  Ruben SM,  Soppet DR;
PI   Wei YF,  Young PE,  Zeng Z;
XX
DR   WPI; 1998-520811/44.
DR   N-PSDB; AAV34310.
XX
PT   Isolated human poly:nucleotide(s) encoding secretory peptide(s) -
PT   used to develop products for the diagnosis and treatment of e.g.
PT   inflammation, cancers, CNS disorders or immune system disorders
XX
PS   Claim 1; Page 168-169; 201pp; English.
XX
CC   This sequence represents a secreted human protein encoded by the gene
CC   clone detailed in the descriptor line.  The gene can be used to generate
CC   fusion proteins by linking to the gene to a human immunoglobulin Fc
CC   portion (e.g. AAV34277) for increasing the stability of the fused
CC   protein as compared to the human protein only.
CC   The invention relates to 28 novel genes and their fragments (nucleic
CC   acid sequences: AAV34286-V34325; amino acid sequences AAW75196-W75235)
CC   which are useful for preventing, treating or ameliorating  medical
CC   conditions e.g. by protein or gene therapy.  Also, pathological
CC   conditions can be diagnosed by determining the amount of the new
CC   polypeptides in a sample or by determining the presence of mutations in
CC   the new polynucleotides. Specific uses are described for each of the 28
CC   polynucleotides, based on which tissues they are most highly expressed in
CC   (see AAV34286 for described uses).
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 296;  DB 19;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-273;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 2
AAE26983
ID   AAE26983 standard; Protein; 298 AA.
XX
AC   AAE26983;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; immunodeficiency; X-linked agammaglobulinaemia; septic shock;
KW   autoimmune disorder; rheumatoid arthritis; multiple sclerosis; cancer;
KW   Grave's disease; diabetes mellitus; haematopoietic disorder; stroke;
KW   respiratory disorder; asthma; allergy; gastrointestinal disorder;
KW   inflammatory bowel disease; neurodegenerative disorder; hepatitis;
KW   Parkinson's disease; Alzheimer's disease; cardiovascular disorder;
KW   atherosclerosis; myocarditis; renal disorder; fungicide; virucide;
KW   hyperproliferative disorder; acute glomerulonephritis; tonsilitis;
KW   respiratory disorder; rhinitis; sinusitis; neurological disease;
KW   endocrine disorder; Addison's disease; reproductive system disorder;
KW   endometriosis; vasotropic; vulnerary; cytostatic; nootropic; cardiant;
KW   anti-HIV; tranquilliser; gout; antiparasitic.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Human mature secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002077287-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0852659.
XX
PR   11-SEP-1998;   98US-0152060.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-598780/64.
DR   N-PSDB; AAD44660.
XX
PT   Novel human secreted polypeptides and polynucleotides for diagnosing,
PT   preventing, treating immune, hyperproliferative, cardiovascular,
PT   neurological, reproductive disorders and identifying modulators of
PT   therapeutic use -
XX
PS   Claim 11; Page 186; 209pp; English.
XX
CC   AAD44636-AAD44676 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE26959-AAE26999 represent the proteins they encode.
CC   AAE27000-AAE27025 represent human secreted protein fragments or their
CC   variants. The secreted proteins and genes are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Specific uses are described for each of the 28 genes, based
CC   on the tissues in which they are most highly expressed and include
CC   developing products for the diagnosis or treatment of immunodeficiencies,
CC   e.g., X-linked agammaglobulinaemia, B cell immunodeficiencies, severe
CC   combined immunodeficiencies, autoimmune disorders e.g., systemic lupus
CC   erythematosus, rheumatoid arthritis, multiple sclerosis, autoimmune
CC   thyroiditis, autoimmune haemolytic anaemia, Goodpasture's syndrome,
CC   Grave's disease, diabetes mellitus, dermatitis, inflammatory conditions
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CC   including septic shock, sepsis, reperfusion injury, inflammatory bowel
CC   disease, Crohn's disease, haematopoietic disorders, respiratory
CC   disorders e.g., asthma and allergy, gastrointestinal disorders e.g.,
CC   inflammatory bowel disease), cancers e.g., gastric, ovarian, lung,
CC   liver, bladder and breast), central nervous system (CNS) disorders e.g.,
CC   ischaemic brain injury and/or stroke, neurodegenerative disorders e.g.,
CC   Parkinson's disease and Alzheimer's disease, AIDS-related dementia and
CC   prion disease, cardiovascular disorders e.g., myocarditis, arrhythmias,
CC   atherosclerosis, inflammatory disorders e.g., hepatitis, gout, trauma,
CC   pancreatitis, sarcoidosis and allogenic transplant rejection, blood-
CC   related disorder (thrombosis, arterial thrombosis, atherosclerosis),
CC   hyperproliferative disorders, respiratory disorders e.g. rhinitis,
CC   sinusitis, tonsilitis, lung cancer, allergic disorders, pneumonitis,
CC   renal disorders. e.g. acute glomerulonephritis, neurological diseases,
CC   liver disorders, endocrine disorders e.g., hyperthyroidism, Addison's
CC   disease, hyperpituitarism, infectious diseases and reproductive system
CC   disorders e.g. endometriosis. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 296;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-273;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 3
AAE27121
ID   AAE27121 standard; Protein; 298 AA.
XX
AC   AAE27121;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; secreted protein; autoimmune disease; hyperproliferative disorder;
KW   rheumatoid arthritis; neoplasm; cerebrovascular disorder; angiogenesis;
KW   cerebral ischaemia; cardiovascular disorder; nervous system disorder;
KW   cardiac arrest; Alzheimer's disease; ocular disorder; wound healing;
KW   infection; corneal infection; skin aging; food additive; preservative;
KW   tissue regeneration; immunosuppressive; antiproliferative; cytostatic;
KW   cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective;
KW   antibacterial; virucide; fungicide; ophthalmological; gene therapy;
KW   vulnerary.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Mature human secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002076756-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0853161.
XX
PR   02-FEB-2001; 2001US-265583P.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
PA   (MOOR/) MOORE P A.
PA   (YOUN/) YOUNG P E.
PA   (GREE/) GREENE J M.
PA   (FERR/) FERRIE A M.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-574454/61.
DR   N-PSDB; AAD44878.
XX
PT   New nucleic acid molecules encoding 28 human secreted proteins, useful
PT   for diagnosing, preventing, treating or ameliorating medical conditions
PT   and as food additives or preservatives  -
XX
PS   Claim 11; Page 186-187; 209pp; English.
XX
CC   AAD44854-AAD44984 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE27097-AAE27137 represent the proteins they encode.
CC   AAE27138-AAE27164 represent human secreted protein fragments. The genes
CC   and their corresponding secreted proteins are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Secreted protein sequences of the invention are useful for the
CC   diagnosis or treatment of disorders such as autoimmune diseases (e.g.
CC   rheumatoid arthritis), hyperproliferative disorders (e.g. neoplasms of
CC   the breast or liver), cerebrovascular disorders (e.g. cerebral ischaemia,
CC   angiogenesis), cardiovascular disorders (e.g. cardiac arrest), nervous
CC   system disorders (e.g. Alzheimer's disease), infections caused by fungi,
CC   bacteria and viruses and ocular disorders (e.g. corneal infection). The
CC   polypeptides can also be used to aid wound healing and epithelial cell
CC   proliferation, to prevent skin aging due to sunburn, to maintain organs
CC   before transplantation, for supporting cell culture of primary tissues,
CC   to regenerate tissues and in chemotaxis. They can also be used as food
CC   additives or preservative to increase or decrease storage capabilities,
CC   fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors
CC   and other nutritional components. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 296;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-273;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
```

```
Qy          61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy         121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy         181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy         241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 4
ABR47926
ID ABR47926 standard; Protein; 298 AA.
XX
AC ABR47926;
XX
DT 12-JUN-2003 (first entry)
XX
DE Human secreted protein, SEQ ID 817.
XX
KW Cardiant; antiarrhythmic; antiarteriosclerotic; vasotropic; cytostatic;
KW vulnerary; antiinflammatory; nootropic; neuroprotective;
KW antiparkinsonian; gene therapy; human; cardiovascular disorder.
XX
OS Homo sapiens.
XX
PN WO200295010-A2.
XX
PD 28-NOV-2002.
XX
PF 19-MAR-2002; 2002WO-US09785.
XX
PR 21-MAR-2001; 2001US-277340P.
PR 19-JUL-2001; 2001US-306171P.
PR 13-NOV-2001; 2001US-331287P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-129429/12.
XX
PT Novel human secreted proteins, useful for detecting, preventing,
PT diagnosing, prognosticating, treating and/or ameliorating
PT cardiovascular disorders such as arrhythmia -
XX
PS Claim 13; SEQ ID 817; 1881pp; English.
XX
CC The present invention relates to novel human secreted proteins
CC (ABR47633-ABR48145) and their coding sequences (ACC50344-ACC50856). The
CC proteins and their coding sequences are useful for the preparation of a
CC diagnostic or pharmaceutical composition for diagnosing or treating a
CC cardiovascular disorder (e.g., arrhythmia, tachycardia, cardiac arrest,
CC coronary arteriosclerosis and myocardial ischaemia), neural disorders,
CC immune system disorders, muscular disorders, reproductive disorders,
CC gastrointestinal disorders, pulmonary disorders, renal disorders,
CC proliferative disorders and/or cancerous diseases and conditions, for
CC wound healing and epithelial cell proliferation, to treat inflammation or
CC infection, for treating thrombosis and arteriosclerosis, for treating or
CC preventing neural damage which occurs in neuronal disorders or
CC neurodegenerative conditions such as Alzheimer's disease and Parkinson's
CC disease, to enhance bone and periodontal regeneration and aid in tissue
CC transplants or bone grafts, to prevent skin aging or hair loss, to
CC stimulate growth and differentiation of haematopoietic cells and bone
CC marrow cells when used in combination with other cytokines, to maintain
CC organs before transplantation or for supporting cell culture of primary
CC tissues, to increase or decrease differentiation or proliferation of
CC embryonic stem cells, or to modulate mammalian characteristics or
CC metabolism.
CC Note: The sequence data for this patent was published in electronic
CC format and is available from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 298 AA;

Query Match 99.3%; Score 296; DB 24; Length 298;
Best Local Similarity 100.0%; Pred. No. 2.5e-273;
Matches 298; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy           1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db           1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy          61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy         121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy         181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy         241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 5
ABU64994
ID ABU64994 standard; Protein; 298 AA.
XX
AC ABU64994;
XX
DT 15-MAY-2003 (first entry)
XX
DE Human secreted protein gene 25, protein.
XX
KW Secreted protein; immunodeficiency; multiple sclerosis;
KW severe combined immunodeficiency; autoimmune disorder; cancer;
KW rheumatoid arthritis; diabetes mellitus; haematopoietic disorder;
KW inflammatory condition; septic shock; inflammatory bowel disease;
KW Crohn's disease; respiratory disorder; asthma; allergy; stroke;
KW gastrointestinal disorder; central nervous system disorder;
KW ischaemic brain injury; neurodegenerative disorder; Parkinson's disease;
KW Alzheimer's disease; cardiovascular disorder; atherosclerosis;
KW blood-related disorder; thrombosis; atherosclerosis; renal disorder;
KW hyperproliferative disorder; acute glomerulonephritis; Addison's disease;
KW endocrine disorder; liver disease; reproductive system disorder;
KW endometriosis; infectious disease; pancreatic disorder; vaccine;
KW wound repair; angiogenesis; lymphatic disorder; hair loss; body weight;
KW body height; hair colour; human.
XX
OS Homo sapiens.
XX
PN US2002172994-A1.
XX
PD 21-NOV-2002.
XX
PF 11-MAY-2001; 2001US-0852797.
XX
PR 14-MAR-1997; 97US-040710P.
PR 14-MAR-1997; 97US-040762P.
PR 30-MAY-1997; 97US-048100P.
PR 30-MAY-1997; 97US-048189P.
PR 30-MAY-1997; 97US-048357P.

PR 30-MAY-1997; 97US-050934P.
PR 06-JUN-1997; 97US-048970P.
PR 05-SEP-1997; 97US-057765P.
PR 19-DEC-1997; 97US-068368P.
PR 02-FEB-2001; 2001US-265583P.
PR 12-MAR-1998; 98WO-US04858.
PR 11-SEP-1998; 98US-0152060.
XX
PA (RUBE/) RUBEN S M.
PA (ROSE/) ROSEN C A.
PA (LIYY/) LI Y.
PA (ZENG/) ZENG Z.
PA (KYAW/) KYAW H.
PA (FISC/) FISCHER C L.
PA (LIHH/) LI H.
PA (SOPP/) SOPPET D R.
PA (GENT/) GENTZ R L.
PA (WEIY/) WEI Y.
PA (MOOR/) MOORE P A.
PA (YOUN/) YOUNG P E.
PA (GREE/) GREENE J M.
PA (FERR/) FERRIE A M.
XX
PI Ruben SM, Rosen CA, Li Y, Zeng Z, Kyaw H, Fischer CL, Li H;
PI Soppet DR, Gentz RL, Wei Y, Moore PA, Young PE, Greene JM;
PI Ferrie AM;
XX
DR WPI; 2003-310989/30.
DR N-PSDB; ABX96990.
XX
PT New human secreted polypeptides and polynucleotides for diagnosing,
PT prognosing, preventing and treating immune, hyperproliferative, liver,
PT kidney, reproductive disorders and for identifying modulators of
PT therapeutic use -
XX
PS Claim 11; Page 186; 209pp; English.
XX
CC The invention relates to an isolated polypeptide comprising an amino acid
CC sequence at least 95% identical to sequence of 28 human secreted
CC proteins, their fragment, polypeptide domain, epitope, secreted form,
CC variant, allelic variant, or species homologue, or the encoded sequence
CC included in ATCC 97921 and 97922. Also included are the encoding
CC nucleic acids, recombinant vectors, host cells, antibodies, and genes.
CC The proteins and nucleic acids are useful for diagnosing, preventing,
CC treating, prognosing or ameliorating a medical condition e.g.
CC immunodeficiencies (e.g. X-linked agammaglobulinaemia, B cell
CC immunodeficiencies, severe combined immunodeficiencies), autoimmune
CC disorders (e.g. systemic erythematosus, rheumatoid arthritis, multiple
CC sclerosis, autoimmune thyroiditis, autoimmune haemolytic anaemia,
CC Goodpasture's syndrome, Grave's disease, diabetes mellitus, dermatitis),
CC haematopoietic disorders, inflammatory conditions (e.g. septic shock,
CC sepsis, reperfusion injury, inflammatory bowel disease, Crohn's disease),
CC respiratory disorders (e.g. asthma and allergy), gastrointestinal
CC disorders, cancers (e.g. gastric, ovarian, lung, bladder, liver and
CC breast), central nervous system (CNS) disorders (e.g. ischaemic brain
CC injury and/or stroke, traumatic brain injury), neurodegenerative
CC disorders (e.g. Parkinson's disease and Alzheimer's disease, AIDS-related
CC dementia, and prion disease), cardiovascular disorders (e.g.
CC atherosclerosis, myocarditis, cardiovascular disease, and cardiopulmonary
CC bypass complications), inflammation (e.g. hepatitis, gout, trauma,
CC pancreatitis, sarcoidosis, dermatitis, allogenic transplant rejection),
CC blood-related disorders (thrombosis, arterial thrombosis),
CC hyperproliferative disorders, renal disorders (e.g. acute
CC glomerulonephritis), endocrine disorders (e.g. Addison's disease,
CC hyperthyroidism, hyperpituitarism), liver diseases and disorders,
CC reproductive system disorders (e.g. endometriosis), infectious diseases,
CC and pancreatic disorders. Many other diseases and disorders are listed in
CC the specification. They also useful as a vaccine adjuvant. Further they
CC are useful to enhance or inhibit complement mediated cell lysis, for
CC stimulating wound and tissue repair, angiogenesis, and the repair of
CC vascular or lymphatic diseases or disorders. They are also useful
CC to prevent hair loss, to modulate mammalian characteristics such as body
CC height, weight, hair colour, and to increase or decrease storage
CC capabilities, fat content, lipid, protein, carbohydrate, vitamins,
CC minerals, cofactors or other nutritional components. The proteins are
CC also useful for identifying binding partners. The present sequence
CC represents a secreted protein of the invention.
XX
SQ Sequence 298 AA;

Query Match 99.3%; Score 296; DB 24; Length 298;
Best Local Similarity 100.0%; Pred. No. 2.5e-273;
Matches 298; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 6
ABR00172
ID ABR00172 standard; Protein; 298 AA.
XX
AC ABR00172;
XX
DT 03-APR-2003 (first entry)
XX
DE Human gene 162 encoded secreted protein HTEEB42, SEQ ID NO:461.
XX
KW Human; secreted protein; digestive disorder; gastrointestinal disorder;
KW mouth; oesophagus; stomach; small intestine; large intestine; liver;
KW biliary tract; pancreas; cancer; tumour; hyperproliferative disorder;
KW immune disorder; inflammation; infection; wound healing; drug screening;
KW chromosome identification; chromosome mapping; cytostatic; gene therapy;
KW antiinflammatory; immunosuppressive; vulnerary; chromosome 21q21.2.
XX
OS Homo sapiens.
XX
PN WO200276488-A1.
XX
PD 03-OCT-2002.
XX
PF 19-MAR-2002; 2002WO-US08276.
XX
PR 21-MAR-2001; 2001US-277340P.
PR 19-JUL-2001; 2001US-306171P.
PR 13-NOV-2001; 2001US-331287P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-029900/02.
DR N-PSDB; ABZ71351.
XX
PT New human secreted proteins and nucleic acids, useful for detecting,
PT preventing, diagnosing, prognosticating, treating and/or ameliorating
PT e.g. gastrointestinal diseases and disorders, or cancers -
XX
PS Claim 13; Page 1046-1047; 1216pp; English.

```
XX
CC   ABZ71190-ABZ71478 represent cDNAs corresponding to 178 human secreted
CC   protein genes, and ABP00011-ABP00299 represent the proteins they encode.
CC   ABZ71479-ABZ71540 represent human secreted protein genomic fragments. The
CC   invention also encompasses antibodies specific for the secreted proteins,
CC   the use of the secreted proteins in drug screening, and recombinant
CC   vectors and host cells comprising a nucleic acid of the invention. The
CC   secreted proteins, nucleic acids encoding them, antibodies or antibody
CC   fragments specific for the secreted proteins, and modulators of protein
CC   activity are useful for diagnosing, treating, ameliorating or preventing
CC   digestive disorders. Such conditions include disorders of the mouth,
CC   oesophagus, stomach, small intestine, large intestine, liver, biliary
CC   tract and pancreas, and include cancers of these organs and tissues. The
CC   secreted proteins and their nucleic acids may also be used in the
CC   treatment of immune disorders, inflammation, infection,
CC   hyperproliferative disorders, and to promote wound healing. Nucleic acids
CC   of the invention may be used for chromosome identification, chromosome
CC   mapping, in gene therapy, for identifying individuals from minute
CC   biological samples, as hybridisation probes, and as molecular weight
CC   markers. The present sequence represents a human secreted protein of the
CC   invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 296;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-273;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 7
AAW85457
ID   AAW85457 standard; Protein; 298 AA.
XX
AC   AAW85457;
XX
DT   25-FEB-1999  (first entry)
XX
DE   Secreted protein encoded by clone ct864_4.
XX
KW   Secreted protein; nutritional activity; immune stimulating; vaccine;
KW   suppressing activity; haematopoiesis regulating activity;
KW   tissue growth activity; activin; inhibin activity; chemotactaxis;
KW   chemokinetic activity; haemostasis; thrombolytic activity; receptor;
KW   ligand; anti-inflammatory; cadherin; tumour invasion suppressor;
KW   tumour inhibition; gene therapy.
XX
OS   Homo sapiens.
XX
PN   WO9842739-A2.
XX
PD   01-OCT-1998.
XX
PF   20-MAR-1998;   98WO-US05653.
XX
PR   19-MAR-1998;   98US-0044466.
PR   21-MAR-1997;   97US-0822167.
XX
PA   (GEMY ) GENETICS INST INC.
XX
PI   Agostino MJ,  Jacobs K,  Lavallie ER,  McCoy JM,  Merberg D;
PI   Racie LA,  Spaulding V,  Treacy M;
XX
DR   WPI; 1998-609890/51.
DR   N-PSDB; AAV82780.
XX
PT   New polynucleotides encoding secreted human proteins - derived from
PT   human foetal brain, adult brain, foetal kidney, placenta or adult
PT   pineal gland cDNA libraries.
XX
PS   Claim 17; Page 73-74; 113pp; English.
XX
CC   The present sequence represents a secreted protein. The polynucleotide
CC   and secreted protein are predicted to have biological activities which
CC   would make them suitable for treating, preventing or ameliorating medical
CC   conditions in humans and animals, although no supporting data is given.
CC   Suggested activities include nutritional activity, immune stimulating
CC   (e.g. as vaccines) or suppressing activity, haematopoiesis regulating
CC   activity, tissue growth activity, activin/inhibin activity,
CC   chemotactic/chemokinetic activity, haemostatic and thrombolytic activity,
CC   receptor/ligand activity, anti-inflammatory activity, cadherin/tumour
CC   invasion suppressor activity, and tumour inhibition activity (no data is
CC   given in the specification to support these activities). The
CC   polynucleotide is also stated to be useful for gene therapy.
XX
SQ   Sequence   298 AA;

  Query Match             80.5%;  Score 240;  DB 19;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 5.2e-220;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 8
AAU00512
ID   AAU00512 standard; Protein; 298 AA.
XX
AC   AAU00512;
XX
DT   09-MAY-2001  (first entry)
XX
DE   Human junctional adhesion protein (JAM2).
XX
KW   Junctional adhesion protein; JAM2; cellular localisation;
KW   cellular expression; immunoprecipitation; stroke; phosphorylation;
KW   glycosylation; paracellular migration; inflammatory disease;
KW   arthritis; asthma; rheumatoid arthritis; inflammatory bowel disease;
KW   Crohn's disease.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
```

```
FT   Peptide          1..20
FT                    /note= "Possible signal peptide #1"
FT   Peptide          1..28
FT                    /note= "Possible signal peptide #2"
FT   Protein          21..298
FT                    /note= "Possible mature JAM2 #1"
FT   Protein          29..298
FT                    /note= "Possible mature JAM2 #2"
FT   Domain           237..254
FT                    /note= "Transmembrane domain"
XX
PN   WO200114404-A1.
XX
PD   01-MAR-2001.
XX
PF   23-AUG-2000; 2000WO-US23158.
XX
PR   24-AUG-1999;   99US-0150459.
XX
PA   (TEXA-) TEXAS BIOTECHNOLOGY CORP.
XX
PI   Cunningham S,  Trindad Arrate Barros M;
XX
DR   WPI; 2001-218425/22.
DR   N-PSDB; AAS00512.
XX
PT   Novel nucleic acids encoding human junctional adhesion protein useful
PT   for producing antibodies that are suitable for therapeutic purposes  -
XX
PS   Claim 4; Page 46-47; 51pp; English.
XX
CC   The sequence represents a human junctional adhesion molecule 2 (JAM2).
CC   The polynucleotide encoding the polypeptide is useful for recombinant
CC   production of JAM-2 protein, which in turn is useful for the production
CC   of antibodies. The antibodies may be used for probing cellular
CC   localisation and/or expression of JAM2 in tissues under normal and
CC   disease states, for immunoprecipitating JAM2 protein from cells and/or
CC   stroke tissues to determine whether it is modified by glycosylation and
CC   phosphorylation, and for determining JAM2 function. The antibodies
CC   inhibit interaction of JAM2 with inflammatory cells or influences their
CC   paracellular migration, and is therefore useful for alleviating
CC   inflammatory diseases such as arthritis, asthma, rheumatoid arthritis,
CC   inflammatory bowel disease and Crohn's disease.
XX
SQ   Sequence   298 AA;

  Query Match             80.5%;  Score 240;  DB 22;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 5.2e-220;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 9
ABP61801
ID   ABP61801 standard; Protein; 298 AA.
XX
AC   ABP61801;
XX
DT   04-OCT-2002  (first entry)
XX
DE   Human polypeptide SEQ ID NO 155.
XX
KW   Human; cytostatic; antirheumatic; antiarthritic; vulnerary; analgesic;
KW   antiinflammatory; antibacterial; immunosuppressive; antiparkinsonian;
KW   neuroprotective; nootropic; osteopathic; haemostatic; vasotropic;
KW   antiulcer; fungicide; antidiabetic; antiasthmatic; antiallergic;
KW   immunostimulant; antiparasitic; secreted protein; transmembrane protein;
KW   cytokine; cell proliferation; cell differentiation; autoimmune disease;
KW   stem cell; growth factor; nervous system disease; neuropathy;
KW   Alzheimer's disease; Parkinson's disease; Huntington's disease;
KW   osteoporosis; severe combined immunodeficiency; SCID; infection;
KW   multiple sclerosis; rheumatoid arthritis; gene therapy.
XX
OS   Homo sapiens.
XX
PN   US2002065394-A1.
XX
PD   30-MAY-2002.
XX
PF   22-DEC-2000; 2000US-0745763.
XX
PR   18-MAR-1998;   98US-0040963.
XX
PA   (JACO/) JACOBS K.
PA   (MCCO/) MCCOY J M.
PA   (LAVA/) LAVALLIE E R.
PA   (COLL/) COLLINS-RACIE L A.
PA   (EVAN/) EVANS C.
PA   (MERB/) MERBERG D.
PA   (TREA/) TREACY M.
PA   (SPAU/) SPAULDING V.
XX
PI   Jacobs K,  McCoy JM,  LaVallie ER,  Collins-Racie LA,  Evans C;
PI   Merberg D,  Treacy M,  Spaulding V;
XX
DR   WPI; 2002-582343/62.
DR   N-PSDB; ABQ92017.
XX
PT   Novel secreted or transmembrane protein and polynucleotide encoding the
PT   protein, useful for diagnosis and treatment of neurological disorders,
PT   cancer, autoimmune diseases, bone disorders and lung or liver fibrosis
PT   -
XX
PS   Claim 54; Page 116-117; 284pp; English.
XX
CC   The invention relates to human secreted or transmembrane protein (I),
CC   their fragments and is encoded by specific complementary deoxyribonucleic
CC   acid (cDNA) inserts (II), where the protein is substantially free from
CC   other mammalian proteins. (I) are useful for preventing, treating or
CC   ameliorating a medical condition, especially immunological treatment or
CC   prevention of tumours. (I) exhibits activity relating to angiogenesis,
CC   cytokine, cell proliferation, cell differentiation, antiinflammatory,
CC   stem cell growth factor activity and activin or inhibin-related
CC   activities. (I) can be used to manipulate stem cells in culture to give
CC   rise to neuroepithelial cells that can be used to augment or replace
CC   cells damaged by illness, autoimmune disease, accidental damage or
CC   genetic disorders. (I) induces the proliferation of neural cells and
CC   regeneration of nerve and brain tissue and is useful for the treatment of
CC   central and peripheral nervous system diseases and neuropathies, such as
CC   Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC   lateral sclerosis. (I) is involved in chemotactic or chemokinetic
CC   activity, regulation of haematopoiesis and is useful for treating myeloid
CC   or lymphoid cell disorders, platelet disorders such as thrombocytopaenia
CC   and for regeneration of bone, cartilage, tendon, ligament and/or nerve
CC   tissue growth and in tissue repair, healing of burns, incisions, ulcers,
CC   for treating osteoporosis, osteoarthritis, bone degenerative disorders or
CC   periodontal disease. (I) is also useful for gut protection or
CC   regeneration and treatment of lung or liver fibrosis, reperfusion injury
CC   in various tissues, various immune deficiencies and disorders including
CC   severe combined immunodeficiency (SCID), bacterial or fungal infections,
CC   autoimmune disorders e.g. multiple sclerosis, rheumatoid arthritis,
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CC   diabetes mellitus, myasthenia gravis, allergic reactions and conditions,
CC   such as asthma or other respiratory problems. (II) is useful to express
CC   recombinant protein, as markers for tissues in which the corresponding
CC   protein is preferentially expressed and in gene therapy. The present
CC   sequence is that of a polypeptide of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             80.5%;  Score 240;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 5.2e-220;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 10
AAO16452
ID   AAO16452 standard; protein; 298 AA.
XX
AC   AAO16452;
XX
DT   17-APR-2003  (first entry)
XX
DE   Human junctional adhesion molecule 2 (huJAM2).
XX
KW   Human; gene therapy; extracellular region; junctional adhesion molecules;
KW   huJAM; immune system disorder; immune deficiency; autoimmune disorder;
KW   inflammatory disorder; cancer; wound healing; cardiovascular disease;
KW   full-length membrane-bound huJAM protein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..28
FT                   /label= Signal_peptide
FT   Domain          29..236
FT                   /note= "Extracellular domain; Specifically claimed
FT                   region"
FT   Protein         29..298
FT                   /note= "Mature huJAM2"
XX
PN   WO2003008541-A2.
XX
PD   30-JAN-2003.
XX
PF   05-JUL-2002; 2002WO-US19800.
XX
PR   16-JUL-2001; 2001US-305752P.
PR   05-FEB-2002; 2002US-354345P.
XX
PA   (ELIL ) LILLY & CO ELI.
XX
PI   Heuer JG,  Smith RC,  Su EW;
XX
DR   WPI; 2003-221848/21.
DR   N-PSDB; AAL51599.
XX
PT   New extracellular human junctional adhesion molecule (huJAM)
PT   polypeptide, useful for treating an immune system disorder such as an
PT   immune deficiency or an inflammatory disorder, cancer, wound healing,
PT   or a cardiovascular disease  -
XX
PS   Disclosure; Fig 1; 131pp; English.
XX
CC   The invention comprises the DNA and protein sequences of the
CC   extracellular region of human junctional adhesion molecules (huJAM). The
CC   extracellular huJAM DNA and protein sequences are useful in the treatment
CC   of: immune system disorders (e.g. immune deficiency); autoimmune
CC   disorders; inflammatory disorders; cancer; wound healing; or a
CC   cardiovascular disease. The present amino acid sequence represents the
CC   full-length membrane-bound huJAM2 protein.
XX
SQ   Sequence   298 AA;

  Query Match             80.5%;  Score 240;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 5.2e-220;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 11
AAY08060
ID   AAY08060 standard; Protein; 312 AA.
XX
AC   AAY08060;
XX
DT   11-SEP-2000  (first entry)
XX
DE   Human PRO245 protein.
XX
KW   Inflammatory cell infiltration; immune response; T cell proliferation;
KW   anti-inflammatory; anti-autoimmune; anti-diabetic; spondyloarthropathy;
KW   T cell-mediated disease; spondyloarthropathy; sclerosis; renal disease;
KW   inflammatory myopathy; hemolytic anemia; thrombocytopenia; thyroiditis;
KW   diabetes mellitus; demyelinating polyneuropathy; Guillain-Barre syndrome;
KW   multiple sclerosis; polyneuropathy; hepatitis; cirrhosis; enteropathy;
KW   sclerosing cholangitis; inflammatory bowel disease; Whipple's disease;
KW   skin disease; dermatitis; psoriasis; asthma; allergic rhinitis; tumor;
KW   food hypersensitivity; urticaria; eosinophilic pneumonia; transplant;
KW   idiopathic pulmonary fibrosis; graft rejection; PRO245; human.
XX
OS   Homo sapiens.
XX
PN   WO9914241-A2.
XX
PD   25-MAR-1999.
XX
PF   17-SEP-1998;   98WO-US19437.
XX
PR   17-SEP-1997;   97US-0059119.
PR   18-SEP-1997;   97US-0059263.
PR   28-OCT-1997;   97US-0063550.
PR   12-NOV-1997;   97US-0065186.
PR   21-NOV-1997;   97US-0066364.
PR   24-NOV-1997;   97US-0066770.
PR   04-JUN-1998;   98US-0088026.
XX
```

PA (GETH) GENENTECH INC.
XX
PI Fong S, Goddard A, Gurney AL, Tumas D, Wood WI;
XX
DR WPI; 1999-229499/19.
DR N-PSDB; AAX37664.
XX
PT Composition containing novel polypeptide PRO245, its agonist or
PT antagonist -
XX
PS Example 1; Fig 2; 177pp; English.
XX
CC This invention describes a novel composition containing (apart from a
CC carrier or excipient), a novel PRO245 polypeptide (I), its agonist or
CC antagonist, or their fragments, for modulating: (i) infiltration of
CC inflammatory cells into tissue; (ii) an immune response; or (iii) T cell
CC proliferation. The composition increases or decreases any of the effects
CC (i)-(iii). The products of the invention have anti-inflammatory,
CC anti-autoimmune and anti-diabetic activity. (I), and its (ant)agonists
CC and their fragments, are used to treat immune-related diseases,
CC particularly T cell-mediated diseases. The diseases treated include
CC systemic lupus erythematosus, rheumatoid arthritis, juvenile chronic
CC arthritis, spondyloarthropathies, systemic sclerosis (scleroderma),
CC idiopathic inflammatory myopathies (dermatomyositis, polymyositis),
CC Sjogren's syndrome, systemic vasculitis, sarcoidosis, autoimmune
CC hemolytic anemia (immune pancytopenia, paroxysmal nocturnal
CC hemoglobinuria), autoimmune thrombocytopenia (idiopathic thrombocytopenic
CC purpura immune-mediated thrombocytopenia), thyroiditis (Grave's disease,
CC Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC thyroiditis), diabetes mellitus, immune-mediated renal disease
CC (glomerulonephritis, tubulointerstitial nephritis), multiple sclerosis,
CC idiopathic demyelinating polyneuropathy, Guillain-Barre syndrome, chronic
CC inflammatory demyelinating polyneuropathy, infectious hepatitis
CC (hepatitis A, B, C, D, E and other non-hepatotropic viruses), autoimmune
CC chronic active hepatitis, primary biliary cirrhosis, granulomatous
CC hepatitis, and sclerosing cholangitis, inflammatory bowel disease
CC (ulcerative colitis: Crohn's disease), gluten-sensitive enteropathy, and
CC Whipple's disease. Autoimmune or immune-mediated skin diseases including
CC bullous skin diseases, erythema multiforme,contact dermatitis, psoriasis,
CC asthma, allergic rhinitis, atopic dermatitis, food hypersensitivity,
CC urticaria, eosinophilic pneumonia, idiopathic pulmonary fibrosis,
CC hypersensitivity pneumonitis, and transplantation associated diseases
CC (graft rejection, and graft-versus-host-disease). (I), its (ant)agonists
CC or fragment can also be used as an adjuvant in treatment of tumors.
CC Antibodies against (I) can also be used for diagnosing such diseases.
CC This sequence represents the human PRO245 protein described in the
CC invention.
XX
SQ Sequence 312 AA;

Query Match 77.2%; Score 230; DB 20; Length 312;
Best Local Similarity 100.0%; Pred. No. 1.8e-210;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              |||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
```

RESULT 12
AAY23324

ID AAY23324 standard; Protein; 312 AA.
XX
AC AAY23324;
XX
DT 02-SEP-1999 (first entry)
XX
DE A33 related antigen PRO245.
XX
KW A33 related antigen; PRO301; PRO362; PRO245; inflammatory disease;
KW tumour.
XX
OS Homo sapiens.
XX
PN WO9927098-A2.
XX
PD 03-JUN-1999.
XX
PF 20-NOV-1998; 98WO-US24855.
XX
PR 17-SEP-1998; 98WO-US19437.
PR 21-NOV-1997; 97US-0066364.
PR 20-MAR-1998; 98US-0078936.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi A, Fong S, Goddard A, Gurney AL, Napier MA;
PI Tumas D, Wood WI;
XX
DR WPI; 1999-404743/34.
DR N-PSDB; AAX81770.
XX
PT Antigens PRO301, PRO362 and PRO245 related to A33
XX
PS Example 3; Fig 11; 122pp; English.
XX
CC The specification describes A33 related antigens PRO301, PRO362 and
CC PRO245. The methods and compositions of the invention are useful for the
CC treatment and diagnosis of inflammatory disease and tumours in mammals.
CC Such inflammatory diseases include of inflammatory bowel disease,
CC systemic lupus erythematosis, rheumatoid arthritis, juvenile chronic
CC arthritis, spondyloarthropathies, systemic sclerosis, scleroderma,
CC idiopathic inflammatory myopathies, dermatomyositis, polymyositis,
CC Sjogren's syndrome, systemic vaculitis, sarcoidosis, autoimmune hemolytic
CC anemia, immune pancytopenia, paroxysmal nocturnal hemoglobinuria,
CC autoimmune thrombocytopenia, idiopathic thrombocytopenic purpura,
CC immune-mediated thrombocytopenia, thyroiditis, Grave's disease,
CC Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC thyroiditis, diabetes mellitus, immune-mediated renal disease,
CC glomerulonephritis, tubulointerstitial nephritis, demyelinating diseases
CC of the central and peripheral nervous systems such as multiple sclerosis,
CC idiopathic polyneuropathy, hepatobiliary diseases, infectious hepatitis
CC A, B, C, D, E, nonhepatotropic viruses, autoimmune chronic active
CC hepatitis, primary biliary cirrhosis, granulomatous hepatitis, sclerosing
CC cholangitis, inflammatory and fibrotic lung diseases, gluten-sensitive
CC enteropathy, Whipple's disease, autoimmune or immune-mediated skin
CC diseases allergic diseases of the lung such as eosinophilic pneumonias,
CC idiopathic pulmonary fibrosis and hypersensitivity pneumonitis
CC transplantation associated diseases disease. The present sequence
CC represents PRO245.
XX
SQ Sequence 312 AA;

Query Match 77.2%; Score 230; DB 20; Length 312;
Best Local Similarity 100.0%; Pred. No. 1.8e-210;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
```

```
Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 13
AAY13354
ID   AAY13354 standard; Protein; 312 AA.
XX
AC   AAY13354;
XX
DT   25-JUN-1999  (first entry)
XX
DE   Amino acid sequence of protein PRO245.
XX
KW   Secreted protein; transmembrane protein; human; enterocolitis;
KW   Zollinger-Ellison syndrome; gastrointestinal ulceration;
KW   congenital microvillus atrophy; skin disease; cell growth;
KW   abnormal keratinocyte differentiation; psoriasis; epithelial cancer;
KW   Parkinson's disease; Alzheimer's disease; ALS; neuropathy;
KW   fibromodulin; dermal scarring; Usher Syndrome; Atrophia areata;
KW   anti-thrombotic; wound healing; tissue repair.
XX
OS   Homo sapiens.
XX
PN   WO9914328-A2.
XX
PD   25-MAR-1999.
XX
PF   16-SEP-1998;   98WO-US19330.
XX
PR   25-NOV-1997;   97US-0066840.
PR   17-SEP-1997;   97US-0059113.
PR   17-SEP-1997;   97US-0059115.
PR   17-SEP-1997;   97US-0059117.
PR   17-SEP-1997;   97US-0059119.
PR   17-SEP-1997;   97US-0059121.
PR   17-SEP-1997;   97US-0059122.
PR   17-SEP-1997;   97US-0059184.
PR   18-SEP-1997;   97US-0059263.
PR   18-SEP-1997;   97US-0059266.
PR   15-OCT-1997;   97US-0062125.
PR   17-OCT-1997;   97US-0062285.
PR   17-OCT-1997;   97US-0062287.
PR   21-OCT-1997;   97US-0063486.
PR   24-OCT-1997;   97US-0062814.
PR   24-OCT-1997;   97US-0062816.
PR   24-OCT-1997;   97US-0063045.
PR   24-OCT-1997;   97US-0063120.
PR   24-OCT-1997;   97US-0063121.
PR   24-OCT-1997;   97US-0063127.
PR   24-OCT-1997;   97US-0063128.
PR   27-OCT-1997;   97US-0063329.
PR   27-OCT-1997;   97US-0063327.
PR   28-OCT-1997;   97US-0063541.
PR   28-OCT-1997;   97US-0063542.
PR   28-OCT-1997;   97US-0063544.
PR   28-OCT-1997;   97US-0063549.
PR   28-OCT-1997;   97US-0063550.
PR   28-OCT-1997;   97US-0063564.
PR   29-OCT-1997;   97US-0063435.
PR   29-OCT-1997;   97US-0063704.
PR   29-OCT-1997;   97US-0063732.
PR   29-OCT-1997;   97US-0063738.
PR   29-OCT-1997;   97US-0063734.
PR   29-OCT-1997;   97US-0064215.
PR   29-OCT-1997;   97US-0063735.
PR   31-OCT-1997;   97US-0063870.
PR   31-OCT-1997;   97US-0064103.
PR   03-NOV-1997;   97US-0064248.
PR   07-NOV-1997;   97US-0064809.
PR   12-NOV-1997;   97US-0065186.
PR   17-NOV-1997;   97US-0065846.
PR   18-NOV-1997;   97US-0065693.
PR   21-NOV-1997;   97US-0066120.
PR   21-NOV-1997;   97US-0066364.
PR   24-NOV-1997;   97US-0066772.
PR   24-NOV-1997;   97US-0066466.
PR   24-NOV-1997;   97US-0066770.
PR   24-NOV-1997;   97US-0066511.
PR   24-NOV-1997;   97US-0066453.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Chen J,  Goddard A,  Gurney AL,  Pennica D,  Wood WI,  Yuan J;
XX
DR   WPI; 1999-229533/19.
DR   N-PSDB; AAX52225.
XX
PT   New isolated human genes and polypeptides used in, e.g. treatment of
PT   gastrointestinal ulceration
XX
PS   Claim 12; Fig 24; 320pp; English.
XX
CC   AAY13344-403 represent secreted and transmembrane human proteins.
CC   The cDNA sequences are obtained from cDNA libraries, prepared from
CC   fetal lung, fetal kidney, fetal brain, fetal liver and fetal retina.
CC   The encoded polypeptides have specific uses based on their homology to
CC   known polypeptides, e.g. PRO211 and PRO217 can be used for disorders
CC   associated with the preservation and maintenance of gastrointestinal
CC   mucosa and the repair of acute and chronic mucosal lesions
CC   (e.g. enterocolitis, Zollinger-Ellison syndrome, gastrointestinal
CC   ulceration and congenital microvillus atrophy), skin diseases associated
CC   with abnormal keratinocyte differentiation (e.g. psoriasis, epithelial
CC   cancers such as lung squamous cell carcinoma of the vulva and gliomas),
CC   potent effects on cell growth and development, diseases related to
CC   growth or survival of nerve cells including Parkinson's disease,
CC   Alzheimer's disease, ALS, neuropathies or cancer. PRO265 can be used as
CC   for fibromodulin, e.g. for reducing dermal scarring.  PRO264 can be used
CC   as a target for anti-tumor drugs. PRO533 may be used in the treatment
CC   of Usher Syndrome or Atrophia areata; PRO269 can be used as an
CC   anti-thrombotic agent; PRO287 polypeptides and portions may have
CC   therapeutic applications in wound healing and tissue repair; PRO317 can
CC   be used for treating problems of the kidney, uterus, endometrium, blood
CC   vessels, or related tissue, e.g. in the heart of genital tract.
XX
SQ   Sequence   312 AA;

  Query Match             77.2%;  Score 230;  DB 20;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 1.8e-210;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 14
AAB33421
```

ID AAB33421 standard; Protein; 312 AA.
XX
AC AAB33421;
XX
DT 29-JAN-2001 (first entry)
XX
DE Human PRO245 protein UNQ219 SEQ ID NO:36.
XX
KW Human; immune related disease; diagnosis; antiinflammatory; cardiant;
KW dermatological; antiarthritic; antirheumatic; immunosuppressive;
KW haemostatic; antithyroid; antidiabetic; nootropic; neuroprotective;
KW antianaemic; hepatotropic; virucide; antipsoriatic; antiallergic;
KW antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis;
KW osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis;
KW idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis;
KW systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus;
KW autoimmune thrombocytopaenia; immune-mediated renal disease;
KW demyelinating disease; hepatobiliary disease; Whipple's disease;
KW inflammatory bowel disease; gluten-sensitive enteropathy;
KW autoimmune disease; immune-mediated skin disease; allergic disease;
KW immunological disease; transplantation associated disease;
KW graft rejection; graft-versus-host-disease.
XX
OS Homo sapiens.
XX
PN WO200053758-A2.
XX
PD 14-SEP-2000.
XX
PF 02-MAR-2000; 2000WO-US05841.
XX
PR 08-MAR-1999; 99WO-US05028.
PR 10-MAR-1999; 99US-0123618.
PR 12-MAR-1999; 99US-0123957.
PR 23-MAR-1999; 99US-0125775.
PR 12-APR-1999; 99US-0128849.
PR 20-APR-1999; 99WO-US08615.
PR 28-APR-1999; 99US-0131445.
PR 04-MAY-1999; 99US-0132371.
PR 14-MAY-1999; 99US-0134287.
PR 02-JUN-1999; 99WO-US12252.
PR 23-JUN-1999; 99US-0141037.
PR 20-JUL-1999; 99US-0144758.
PR 26-JUL-1999; 99US-0145698.
PR 28-JUL-1999; 99US-0146222.
PR 01-SEP-1999; 99WO-US20111.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 29-OCT-1999; 99US-0162506.
PR 29-NOV-1999; 99WO-US28214.
PR 30-NOV-1999; 99WO-US28313.
PR 30-NOV-1999; 99WO-US28409.
PR 01-DEC-1999; 99WO-US28301.
PR 01-DEC-1999; 99WO-US28634.
PR 02-DEC-1999; 99WO-US28551.
PR 02-DEC-1999; 99WO-US28564.
PR 02-DEC-1999; 99WO-US28565.
PR 16-DEC-1999; 99WO-US30095.
PR 20-DEC-1999; 99WO-US30999.
PR 30-DEC-1999; 99WO-US31274.
PR 05-JAN-2000; 2000WO-US00219.
PR 06-JAN-2000; 2000WO-US00277.
PR 06-JAN-2000; 2000WO-US00376.
PR 11-FEB-2000; 2000WO-US03565.
PR 18-FEB-2000; 2000WO-US04341.
PR 18-FEB-2000; 2000WO-US04342.
PR 22-FEB-2000; 2000WO-US04414.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Goddard A, Gurney AL, Hebert C, Henzel W;
PI Kabakoff RC, Lu Y, Pan J, Pennica D, Shelton DL, Smith V;
PI Stewart TA, Tumas D, Watanabe CK, Wood WI, Yan M;
XX
DR WPI; 2000-572271/53.
DR N-PSDB; AAC58586.
XX
PT Sixty four PRO polypeptides, useful in the diagnosis and treatment of
PT immune related disorders, e.g. systemic lupus erythematosis, rheumatoid
PT arthritis, osteoarthritis, thyroiditis and diabetes mellitus -
XX
PS Claim 33; Fig 16; 309pp; English.
XX
CC The present invention describes sixty four human PRO proteins which can
CC be used in the treatment of immune related diseases. The human PRO
CC proteins, anti-PRO antibodies, agonists and antagonists are useful for
CC treating and diagnosing immune related disorders. The disorders are
CC selected from systemic lupus erythematosus, rheumatoid arthritis,
CC osteoarthritis, juvenile chronic arthritis, spondyloarthropathies,
CC systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's
CC syndrome, systemic vasculitis, sarcoidosis, autoimmune haemolytic
CC anaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus,
CC immune-mediated renal disease, demyelinating diseases of the central
CC and peripheral nervous systems, hepatobiliary diseases, inflammatory
CC bowel disease, gluten-sensitive enteropathy and Whipple's disease,
CC autoimmune or immune-mediated skin diseases, allergic diseases,
CC immunological diseases of the lung, and transplantation associated
CC diseases including graft rejection and graft-versus-host-disease.
CC AAC58397 to AAC58578 represent PCR primers and hybridisation probes used
CC in the isolation of human PRO sequences. AAC58579 to AAC58642 and
CC AAB33414 to AAB33477 represent human PRO polynucleotide and protein
CC sequences given in the exemplification of the present invention.
XX
SQ Sequence 312 AA;

Query Match 77.2%; Score 230; DB 21; Length 312;
Best Local Similarity 100.0%; Pred. No. 1.8e-210;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
```

RESULT 15
AAB24401
ID AAB24401 standard; Protein; 312 AA.
XX
AC AAB24401;
XX
DT 07-NOV-2000 (first entry)
XX
DE Human PRO245 protein sequence SEQ ID NO:67.
XX
KW Human; PRO; promotion; inhibition; angiogenesis; cardiovascularisation;
KW diagnosis; trauma; wound; cancer; atherosclerosis; cardiac hypertrophy;
KW angiogenic; proliferative; cardiant; cardiovascular; antiatherosclerotic;
KW cytostatic; gene therapy; vaccine.
XX
OS Homo sapiens.
XX

PN WO200032221-A2.
XX
PD 08-JUN-2000.
XX
PF 30-NOV-1999; 99WO-US28313.
XX
PR 01-DEC-1998; 98WO-US25108.
PR 16-DEC-1998; 98US-0112850.
PR 12-JAN-1999; 99US-0115554.
PR 08-MAR-1999; 99WO-US05028.
PR 12-MAR-1999; 99US-0123957.
PR 28-APR-1999; 99US-0131445.
PR 14-MAY-1999; 99US-0134287.
PR 02-JUN-1999; 99WO-US12252.
PR 23-JUN-1999; 99US-0141037.
PR 20-JUL-1999; 99US-0144758.
PR 26-JUL-1999; 99US-0145698.
PR 01-SEP-1999; 99WO-US20111.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 29-OCT-1999; 99US-0162506.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Ferrara N, Gerber H, Hillan KJ, Goddard A;
PI Godowski PJ, Gurney AL, Klein RD, Kuo SS, Paoni NF, Smith V;
PI Watanabe CK, Williams PM, Wood WI;
XX
DR WPI; 2000-412154/35.
DR N-PSDB; AAA77562.
XX
PT Nucleic acids encoding PRO polypeptides useful for preventing,
PT diagnosing and treating diagnosing a cardiovascular, endothelial or
PT angiogenic disorders in mammals -
XX
PS Claim 72; Fig 28; 315pp; English.
XX
CC The present invention describes nucleic acids encoding PRO polypeptides
CC useful for preventing, diagnosing and treating diagnosing a
CC cardiovascular, endothelial or angiogenic disorder in mammals by
CC modulating cell proliferation, angiogenesis and cardiovascularisation,
CC and for identifying agonists and antagonists of these processes. The
CC nucleic acids and the proteins they encode may be used in the
CC prevention, treatment and diagnosis of diseases associated with
CC inappropriate PRO expression such as cardiovascular, endothelial or
CC angiogenic disorders in mammals (e.g. atherosclerosis, cancers and
CC cardiac hypertrophy). For example, the nucleic acids (NCs) and vectors
CC containing them and the PRO polypeptide may be used to treat disorders
CC associated with decreased PRO expression. AAA77510 to AAA77721 and
CC AAB24388 to AAB24435 represent nucleotide and protein sequences used in
CC the exemplification of the present invention.
XX
SQ Sequence 312 AA;

Query Match 77.2%; Score 230; DB 21; Length 312;
Best Local Similarity 100.0%; Pred. No. 1.8e-210;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Db        59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy       119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy       179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
             ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy       239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
             ||||||||||||||||||||||||||||||||||||||||||||||||||
Db       239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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GenCore version 5.1.6

OM protein - protein search, using sw model

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(without alignments)
809.548 Million cell updates/sec

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Perfect score: 298
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Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	296	99.3	298	4	US-09-152-060-76	Sequence 76, Appl
2	230	77.2	312	4	US-09-254-465A-9	Sequence 9, Appli

ALIGNMENTS

RESULT 1
US-09-152-060-76
; Sequence 76, Application US/09152060
; Patent No. 6448230
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 28 Human Secreted Proteins
; FILE REFERENCE: PZ003P1.US
; CURRENT APPLICATION NUMBER: US/09/152,060
; CURRENT FILING DATE: 1998-09-11
; EARLIER APPLICATION NUMBER: PCT/US98/04858
; EARLIER FILING DATE: 1998-03-12
; EARLIER APPLICATION NUMBER: 60/040,762
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/040,710
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/050,934
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,100
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,357
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,189
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/057,765
; EARLIER FILING DATE: 1997-09-05
; EARLIER APPLICATION NUMBER: 60/048,970
; EARLIER FILING DATE: 1997-06-06
; EARLIER APPLICATION NUMBER: 60/068,368
; EARLIER FILING DATE: 1997-12-19
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
; LENGTH: 298
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (42)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (58)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-152-060-76

Query Match 99.3%; Score 296; DB 4; Length 298;
Best Local Similarity 100.0%; Pred. No. 8.9e-276;
Matches 298; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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RESULT 2
US-09-254-465A-9
; Sequence 9, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Fong, Sherman
; APPLICANT: Goddard, Audrey
; APPLICANT: Gurney, Austin L.
; APPLICANT: Napier, Mary A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Wood, William I.
; TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
; TITLE OF INVENTION: OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
; FILE REFERENCE: P1216R1(US)
; CURRENT APPLICATION NUMBER: US/09/254,465A
; CURRENT FILING DATE: 1999-03-05
; PRIOR APPLICATION NUMBER: PCT/US98/24855
; PRIOR FILING DATE: 1998-11-20
; PRIOR APPLICATION NUMBER: US 60/066,364
; PRIOR FILING DATE: 1997-11-21

; PRIOR APPLICATION NUMBER: US 60/078,936
; PRIOR FILING DATE: 1998-03-20
; PRIOR APPLICATION NUMBER: PCT/US98/19437
; PRIOR FILING DATE: 1998-09-17
; NUMBER OF SEQ ID NOS: 30
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; LENGTH: 312
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-254-465A-9

Query Match 77.2%; Score 230; DB 4; Length 312;
Best Local Similarity 100.0%; Pred. No. 1.7e-212;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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OM protein - protein search, using sw model

Run on: December 9, 2003, 17:38:14 ; Search time 35.8223 Seconds
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Title: US-09-852-797-76
Perfect score: 298
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Scoring table: OLIGO
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Searched: 684280 seqs, 185983659 residues

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	296	99.3	298	9	US-09-853-161-76	Sequence 76, Appl
2	296	99.3	298	9	US-09-852-659A-76	Sequence 76, Appl
3	296	99.3	298	10	US-09-852-797-76	Sequence 76, Appl
4	240	80.5	298	9	US-09-745-763-38	Sequence 38, Appl
5	240	80.5	298	9	US-09-799-777-30	Sequence 30, Appl
6	240	80.5	298	15	US-10-139-849-2	Sequence 2, Appli
7	240	80.5	298	16	US-10-192-791-2	Sequence 2, Appli
8	230	77.2	312	10	US-09-909-320-64	Sequence 64, Appl
9	230	77.2	312	10	US-09-909-088B-64	Sequence 64, Appl
10	230	77.2	312	10	US-09-905-291A-64	Sequence 64, Appl
11	230	77.2	312	10	US-09-953-499-9	Sequence 9, Appli
12	230	77.2	312	10	US-09-902-853-64	Sequence 64, Appl
13	230	77.2	312	10	US-09-907-824-64	Sequence 64, Appl
14	230	77.2	312	10	US-09-907-841-64	Sequence 64, Appl
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17	230	77.2	312	11	US-09-906-838-64	Sequence 64, Appl
18	230	77.2	312	11	US-09-907-613-64	Sequence 64, Appl
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37	230	77.2	312	11	US-09-903-520-64	Sequence 64, Appl
38	230	77.2	312	11	US-09-905-056-64	Sequence 64, Appl
39	230	77.2	312	11	US-09-909-064-64	Sequence 64, Appl
40	230	77.2	312	11	US-09-904-553-64	Sequence 64, Appl
41	230	77.2	312	11	US-09-905-381-64	Sequence 64, Appl
42	230	77.2	312	11	US-09-905-088-64	Sequence 64, Appl
43	230	77.2	312	11	US-09-907-575-64	Sequence 64, Appl
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45	230	77.2	312	11	US-09-902-759-64	Sequence 64, Appl

ALIGNMENTS

RESULT 1
US-09-853-161-76
; Sequence 76, Application US/09853161
; Patent No. US20020076756A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 28 Human Secreted Proteins
; FILE REFERENCE: PZ003P3
; CURRENT APPLICATION NUMBER: US/09/853,161
; CURRENT FILING DATE: 2001-05-11
; PRIOR APPLICATION NUMBER: 60/265,583
; PRIOR FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: 09/152,060
; PRIOR FILING DATE: 1998-09-11
; PRIOR APPLICATION NUMBER: PCT/US98/04858
; PRIOR FILING DATE: 1998-03-12
; PRIOR APPLICATION NUMBER: 60/040,762
; PRIOR FILING DATE: 1997-03-14
; PRIOR APPLICATION NUMBER: 60/040,710
; PRIOR FILING DATE: 1997-03-14
; PRIOR APPLICATION NUMBER: 60/050,934
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,100
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,357
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,189
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/057,765
; PRIOR FILING DATE: 1997-09-05
; PRIOR APPLICATION NUMBER: 60/048,970
; PRIOR FILING DATE: 1997-06-06
; PRIOR APPLICATION NUMBER: 60/068,368
; PRIOR FILING DATE: 1997-12-19
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
; LENGTH: 298

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;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-853-161-76

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  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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RESULT 2
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; Sequence 76, Application US/09852659A
; Patent No. US20020077287A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P4
;  CURRENT APPLICATION NUMBER: US/09/852,659A
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 121
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-659A-76

  Query Match             99.3%;  Score 296;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-269;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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RESULT 3
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; Sequence 76, Application US/09852797
; Patent No. US20020172994A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P2
;  CURRENT APPLICATION NUMBER: US/09/852,797
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
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;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
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;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 118
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;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-797-76

  Query Match             99.3%;  Score 296;  DB 10;  Length 298;
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Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 4
US-09-745-763-38
; Sequence 38, Application US/09745763
; Patent No. US20020065394A1
;   GENERAL INFORMATION:
;        APPLICANT: Jacobs, Kenneth
;                   McCoy, John M.
;                   LaVallie, Edward R.
;                   Collins-Racie, Lisa A.
;                   Evans, Cheryl
;                   Merberg, David
;                   Treacy, Maurice
;                   Spaulding, Vikki
;        TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES
;                            ENCODING THEM
;        NUMBER OF SEQUENCES: 219
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Genetics Institute, Inc.
;             STREET: 87 CambridgePark Drive
;             CITY: Cambridge
;             STATE: MA
;             COUNTRY: U.S.A.
;             ZIP: 02140
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/745,763
;             FILING DATE: 18-Jun-2000
;             CLASSIFICATION: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Sprunger, Suzanne A.
;             REGISTRATION NUMBER: 41,323
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (617) 498-8284
;             TELEFAX: (617) 876-5851
;   INFORMATION FOR SEQ ID NO: 38:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: <Unknown>
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 38:
US-09-745-763-38

  Query Match             80.5%;  Score 240;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 8.5e-217;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 5
US-09-799-777-30
; Sequence 30, Application US/09799777
; Patent No. US20020091244A1
;   GENERAL INFORMATION:
;        APPLICANT: Lal, Preeti
;                   Hillman, Jennifer L.
;                   Corley, Neil C.
;                   Guegler, Karl J.
;                   Baugh, Mariah
;                   Sather, Susan
;                   Shah, Purvi
;        TITLE OF INVENTION: HUMAN SIGNAL PEPTIDE-CONTAINING PROTEINS
;        NUMBER OF SEQUENCES: 154
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
;             STREET: 3174 PORTER DRIVE
;             CITY: PALO ALTO
;             STATE: CALIFORNIA
;             COUNTRY: USA
;             ZIP: 94304
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/799,777
;             FILING DATE: 06-Mar-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/002,485
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: BILLINGS, LUCY J.
;             REGISTRATION NUMBER: 36,749
;             REFERENCE/DOCKET NUMBER: PF-0459 US
;        TELECOMMUNICATION INFORMATION:
```

```
;             TELEPHONE: (650) 855-0555
;             TELEFAX: (650) 845-4166
;   INFORMATION FOR SEQ ID NO: 30:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        IMMEDIATE SOURCE:
;             LIBRARY: DUODNOT02
;             CLONE: 1704050
;        SEQUENCE DESCRIPTION: SEQ ID NO: 30 :
US-09-799-777-30

  Query Match             80.5%;  Score 240;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 8.5e-217;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 6
US-10-139-849-2
; Sequence 2, Application US/10139849
; Publication No. US20030079238A1
;   GENERAL INFORMATION:
;        APPLICANT: Cunningham, Sonia
;                   Barros, Maria Pia
;        TITLE OF INVENTION: A POLYNUCLEOTIDE ENCODING A HUMAN
;                            JUNCTIONAL ADHESION PROTEIN (JAM 2)
;        NUMBER OF SEQUENCES: 10
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Rockey, Milnamow & Katz, Ltd.
;             STREET: 180 N. Stetson Avenue, 2 Prudential Plaza,
;                     Suite 4700
;             CITY: Chicago
;             STATE: IL
;             COUNTRY: U.S.A.
;             ZIP: 60601
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/139,849
;             FILING DATE: 07-May-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/643,929
;             FILING DATE: 23-Aug-2000
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Katz, Martin L.
;             REGISTRATION NUMBER: 25,011
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 312-616-5400
;             TELEFAX: 312-616-5460
;   INFORMATION FOR SEQ ID NO: 2:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-10-139-849-2

  Query Match             80.5%;  Score 240;  DB 15;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 8.5e-217;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 7
US-10-192-791-2
; Sequence 2, Application US/10192791
; Publication No. US20030130166A1
; GENERAL INFORMATION:
;  APPLICANT: Texas Biotechnology Corporation
;  TITLE OF INVENTION: A Polynucleotide Encoding a Human Junctional Adhesion Protein (JA
;  FILE REFERENCE: TEX4542P0430
;  CURRENT APPLICATION NUMBER: US/10/192,791
;  CURRENT FILING DATE:  2003-12-10
;  NUMBER OF SEQ ID NOS: 10
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-192-791-2

  Query Match             80.5%;  Score 240;  DB 16;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 8.5e-217;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 8
US-09-909-320-64
; Sequence 64, Application US/09909320
; Patent No. US20020132240A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
```

; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,320
; CURRENT FILING DATE: 2002-01-04
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
; LENGTH: 312
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-909-320-64

Query Match 77.2%; Score 230; DB 10; Length 312;
Best Local Similarity 100.0%; Pred. No. 2.1e-207;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 9
US-09-909-088B-64
; Sequence 64, Application US/09909088B
; Patent No. US20020146709A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,088B
; CURRENT FILING DATE: 2001-07-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29

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;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-909-088B-64

  Query Match             77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 10
US-09-905-291A-64
; Sequence 64, Application US/09905291A
; Patent No. US20020160374A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/905,291A
;  CURRENT FILING DATE:  2001-07-12
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-291A-64

  Query Match             77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 11
US-09-953-499-9
; Sequence 9, Application US/09953499
; Publication No. US20020182206A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
```

```
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE: P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/953,499
;  CURRENT FILING DATE:  2001-09-14
;  PRIOR APPLICATION NUMBER: US/09/254,465
;  PRIOR FILING DATE: 1999-03-05
;  PRIOR APPLICATION NUMBER: PCT/US98/24855
;  PRIOR FILING DATE: 1998-11-20
;  PRIOR APPLICATION NUMBER: US 60/066,364
;  PRIOR FILING DATE: 1997-11-21
;  PRIOR APPLICATION NUMBER: US 60/078,936
;  PRIOR FILING DATE: 1998-03-20
;  PRIOR APPLICATION NUMBER: PCT/US98/19437
;  PRIOR FILING DATE: 1998-09-17
;  NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 9
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-953-499-9

  Query Match             77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 12
US-09-902-853-64
; Sequence 64, Application US/09902853
; Publication No. US20020192659A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/902,853
;  CURRENT FILING DATE:  2001-07-10
;  PRIOR APPLICATION NUMBER: US/09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-902-853-64

  Query Match             77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 13
US-09-907-824-64
; Sequence 64, Application US/09907824
; Publication No. US20020197671A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,824
;  CURRENT FILING DATE:  2001-07-17
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-907-824-64

  Query Match            77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity  100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 14
US-09-907-841-64
; Sequence 64, Application US/09907841
; Publication No. US20020198366A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,841
;  CURRENT FILING DATE:  2001-11-20
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
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;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-907-841-64

  Query Match             77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 15
US-09-904-011-64
; Sequence 64, Application US/09904011
; Publication No. US20030003530A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/904,011
;  CURRENT FILING DATE:  2001-07-11
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-904-011-64

  Query Match             77.2%;  Score 230;  DB 11;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


Search completed: December  9, 2003, 17:47:07
Job time : 37.8223 secs
```

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:33:14 ; Search time 14.5366 Seconds
(without alignments)
1971.458 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 298
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 283308 seqs, 96168682 residues

Word size : 30

Total number of hits satisfying chosen parameters: 0

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description

No matches found

Search completed: December 9, 2003, 17:38:31
Job time : 14.5366 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:26:43 ; Search time 10.3833 Seconds
(without alignments)
1349.666 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 298
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 127863 seqs, 47026705 residues

Word size : 30

Total number of hits satisfying chosen parameters: 1

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	240	80.5	298	1	JAM2_HUMAN	P57087 homo sapien

ALIGNMENTS

RESULT 1
JAM2_HUMAN
ID JAM2_HUMAN STANDARD; PRT; 298 AA.
AC P57087;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 15-SEP-2003 (Rel. 42, Last annotation update)
DE Junctional adhesion molecule 2 precursor (Vascular endothelial
DE junction-associated molecule) (VE-JAM).
GN JAM2 OR VEJAM OR C21ORF43.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Vascular endothelial cells;
RX MEDLINE=20317114; PubMed=10779521;
RA Palmeri D., van Zante A., Huang C.C., Hemmerich S., Rosen S.D.;
RT "Vascular endothelial junction-associated molecule, a novel member of
RT the immunoglobulin superfamily, is localized to intercellular
RT boundaries of endothelial cells.";
RL J. Biol. Chem. 275:19139-19145(2000).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Placenta;
RX MEDLINE=20507930; PubMed=10945976;
RA Cunningham S.A., Arrate M.P., Rodriguez J.M., Bjercke R.J.,
RA Vanderslice P., Morris A.P., Brock T.A.;
RT "A novel protein with homology to the junctional adhesion molecule:
RT Characterization of leukocyte interactions.";
RL J. Biol. Chem. 275:34750-34756(2000).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=Lung;
RX MEDLINE=22388257; PubMed=12477932;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length
RT human and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC -!- FUNCTION: MAY PLAY A ROLE IN THE PROCESSES OF LYMPHOCYTE HOMING TO
CC SECONDARY LYMPHOID ORGANS.
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC -!- TISSUE SPECIFICITY: PROMINENTLY EXPRESSED ON HIGH ENDOTHELIAL
CC VENULES BUT IS ALSO PRESENT ON THE ENDOTHELIA OF OTHER VESSELS.
CC LOCALIZED TO THE INTERCELLULAR BOUNDARIES OF HIGH ENDOTHELIAL
CC CELLS.
CC -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC -!- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
CC -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC -!- DATABASE: NAME=PROW; NOTE=PROW 2:1-3(2001);
CC WWW="http://www.ncbi.nlm.nih.gov/prow/guide/1652492186_g.htm".
CC ---

CC ---
DR EMBL; AF255910; AAF81223.1; -.
DR EMBL; AY016009; AAG49022.1; -.
DR EMBL; BC017779; AAH17779.1; -.
DR Genew; HGNC:14686; JAM2.
DR MIM; 606870; -.
DR GO; GO:0005887; C:integral to plasma membrane; NAS.
DR GO; GO:0016337; P:cell-cell adhesion; NAS.
DR InterPro; IPR007110; Ig-like.
DR InterPro; IPR003598; Ig_c2.
DR InterPro; IPR003006; Ig_MHC.
DR Pfam; PF00047; ig; 2.
DR SMART; SM00408; IGc2; 1.
DR PROSITE; PS50835; IG_LIKE; 2.
KW Immunoglobulin domain; Glycoprotein; Transmembrane; Signal.
FT SIGNAL 1 20 POTENTIAL.
FT CHAIN 21 298 JUNCTIONAL ADHESION MOLECULE 2.
FT DOMAIN 21 238 EXTRACELLULAR (POTENTIAL).
FT TRANSMEM 239 259 POTENTIAL.
FT DOMAIN 260 298 CYTOPLASMIC (POTENTIAL).
FT DOMAIN 32 127 IG-LIKE V-TYPE.
FT DOMAIN 134 238 IG-LIKE C2-TYPE.
FT DISULFID 50 109 POTENTIAL.
FT DISULFID 155 214 POTENTIAL.

```
FT   CARBOHYD     98     98       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    187    187       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    236    236       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   298 AA;  33207 MW;  CA78E518E22DCAEE CRC64;

  Query Match             80.5%;  Score 240;  DB 1;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 9.1e-214;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


Search completed: December  9, 2003, 17:36:26
Job time : 11.3833 secs
```

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:32:33 ; Search time 37.899 Seconds
(without alignments)
2029.071 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 298
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 830525 seqs, 258052604 residues

Word size : 30

Total number of hits satisfying chosen parameters: 0

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description

No matches found.

Search completed: December 9, 2003, 17:38:06
Job time : 53.899 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:13:47 ; Search time 39.4564 Seconds
(without alignments)
1198.803 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 298
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 1107863 seqs, 158726573 residues

Word size : 50

Total number of hits satisfying chosen parameters: 40

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : A_Geneseq_19Jun03:*
1: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
3: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:*
4: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
5: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1984.DAT:*
6: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1985.DAT:*
7: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1986.DAT:*
8: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1987.DAT:*
9: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1988.DAT:*
10: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
11: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1990.DAT:*
12: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
13: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1992.DAT:*
14: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1993.DAT:*
15: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1994.DAT:*
16: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1995.DAT:*
17: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1996.DAT:*
18: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1997.DAT:*
19: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1998.DAT:*
20: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
21: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2000.DAT:*
22: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2001.DAT:*
23: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
24: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2003.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	296	99.3	298	19	AAW75220	Human secreted pro
2	296	99.3	298	23	AAE26983	Human gene 25 enco
3	296	99.3	298	23	AAE27121	Human gene 25 enco
4	296	99.3	298	24	ABR47926	Human secreted pro
5	296	99.3	298	24	ABU64994	Human secreted pro
6	296	99.3	298	24	ABR00172	Human gene 162 enc
7	240	80.5	298	19	AAW85457	Secreted protein e
8	240	80.5	298	22	AAU00512	Human junctional a
9	240	80.5	298	23	ABP61801	Human polypeptide
10	240	80.5	298	24	AAO16452	Human junctional a
11	230	77.2	312	20	AAY08060	Human PRO245 prote
12	230	77.2	312	20	AAY23324	A33 related antige
13	230	77.2	312	20	AAY13354	Amino acid sequenc
14	230	77.2	312	21	AAB33421	Human PRO245 prote
15	230	77.2	312	21	AAB24401	Human PRO245 prote
16	230	77.2	312	21	AAY70668	Human PRO245 prote
17	230	77.2	312	22	AAU12339	Human PRO245 polyp
18	230	77.2	312	22	AAU00821	Human immune respo
19	230	77.2	312	22	AAB80222	Human PRO245 prote
20	230	77.2	312	22	AAB50904	Human PRO245 prote
21	230	77.2	312	22	AAB53081	Human angiogenesis
22	230	77.2	312	24	ABU69632	Novel human secret
23	230	77.2	312	24	ABU71455	Human PRO polypept
24	230	77.2	312	24	ABU71901	Human secreted/tra
25	230	77.2	312	24	ABU07738	Human A-33 related
26	230	77.2	312	24	ABU66737	Human PRO polypept
27	230	77.2	312	24	ABU67013	Human secreted/tra
28	230	77.2	312	24	ABU67355	Human secreted pro
29	230	77.2	312	24	ABU59818	Novel secreted and
30	230	77.2	312	24	ABU64509	Human secreted/tra
31	230	77.2	312	24	ABU54357	Human secreted/tra
32	222	74.5	222	22	AAM41947	Human polypeptide
33	215	72.1	215	22	AAB70500	Angiogenesis prote
34	183	61.4	213	21	AAB27277	Human confluency r
35	166	55.7	303	22	AAM23693	Human EST encoded
36	107	35.9	107	22	AAM40161	Human polypeptide
37	89	29.9	388	22	ABG22341	Novel human diagno
38	73	24.5	140	22	ABG22338	Novel human diagno
39	69	23.2	69	22	ABG22339	Novel human diagno
40	51	17.1	66	22	ABG22340	Novel human diagno

ALIGNMENTS

RESULT 1
AAW75220
ID AAW75220 standard; Protein; 298 AA.
XX
AC AAW75220;
XX
DT 29-JAN-1999 (first entry)
XX
DE Human secreted protein encoded by gene 25 clone HTEEB42.
XX
KW Human; secreted protein; fusion protein; gene therapy; protein therapy;
KW diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia;
KW developmental abnormality; foetal deficiency; blood; allergy; renal;
KW immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;
KW inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS;
KW cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;
KW osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;
KW endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 42
FT /label= unknown
FT Misc-difference 58
FT /label= unknown
XX
PN WO9840483-A2.
XX
PD 17-SEP-1998.
XX
PF 12-MAR-1998; 98WO-US04858.
XX
PR 19-DEC-1997; 97US-0068368.
PR 14-MAR-1997; 97US-0040710.
PR 14-MAR-1997; 97US-0040762.
PR 30-MAY-1997; 97US-0048100.

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PR   30-MAY-1997;   97US-0048189.
PR   30-MAY-1997;   97US-0048357.
PR   30-MAY-1997;   97US-0050934.
PR   06-JUN-1997;   97US-0048970.
PR   05-SEP-1997;   97US-0057765.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Ferrie AM,  Fischer CL,  Gentz RL,  Greene JM,  Kyaw H;
PI   Li H,  Li Y,  Moore PA, Rosen CA,  Ruben SM,  Soppet DR;
PI   Wei YF,  Young PE,  Zeng Z;
XX
DR   WPI; 1998-520811/44.
DR   N-PSDB; AAV34310.
XX
PT   Isolated human poly:nucleotide(s) encoding secretory peptide(s) -
PT   used to develop products for the diagnosis and treatment of e.g.
PT   inflammation, cancers, CNS disorders or immune system disorders
XX
PS   Claim 1; Page 168-169; 201pp; English.
XX
CC   This sequence represents a secreted human protein encoded by the gene
CC   clone detailed in the descriptor line.  The gene can be used to generate
CC   fusion proteins by linking to the gene to a human immunoglobulin Fc
CC   portion (e.g. AAV34277) for increasing the stability of the fused
CC   protein as compared to the human protein only.
CC   The invention relates to 28 novel genes and their fragments (nucleic
CC   acid sequences: AAV34286-V34325; amino acid sequences AAW75196-W75235)
CC   which are useful for preventing, treating or ameliorating  medical
CC   conditions e.g. by protein or gene therapy.  Also, pathological
CC   conditions can be diagnosed by determining the amount of the new
CC   polypeptides in a sample or by determining the presence of mutations in
CC   the new polynucleotides. Specific uses are described for each of the 28
CC   polynucleotides, based on which tissues they are most highly expressed in
CC   (see AAV34286 for described uses).
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 296;  DB 19;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-273;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 2
AAE26983
ID   AAE26983 standard; Protein; 298 AA.
XX
AC   AAE26983;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; immunodeficiency; X-linked agammaglobulinaemia; septic shock;
KW   autoimmune disorder; rheumatoid arthritis; multiple sclerosis; cancer;
KW   Grave's disease; diabetes mellitus; haematopoietic disorder; stroke;
KW   respiratory disorder; asthma; allergy; gastrointestinal disorder;
KW   inflammatory bowel disease; neurodegenerative disorder; hepatitis;
KW   Parkinson's disease; Alzheimer's disease; cardiovascular disorder;
KW   atherosclerosis; myocarditis; renal disorder; fungicide; virucide;
KW   hyperproliferative disorder; acute glomerulonephritis; tonsilitis;
KW   respiratory disorder; rhinitis; sinusitis; neurological disease;
KW   endocrine disorder; Addison's disease; reproductive system disorder;
KW   endometriosis; vasotropic; vulnerary; cytostatic; nootropic; cardiant;
KW   anti-HIV; tranquilliser; gout; antiparasitic.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Human mature secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002077287-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0852659.
XX
PR   11-SEP-1998;   98US-0152060.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-598780/64.
DR   N-PSDB; AAD44660.
XX
PT   Novel human secreted polypeptides and polynucleotides for diagnosing,
PT   preventing, treating immune, hyperproliferative, cardiovascular,
PT   neurological, reproductive disorders and identifying modulators of
PT   therapeutic use  -
XX
PS   Claim 11; Page 186; 209pp; English.
XX
CC   AAD44636-AAD44676 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE26959-AAE26999 represent the proteins they encode.
CC   AAE27000-AAE27025 represent human secreted protein fragments or their
CC   variants. The secreted proteins and genes are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Specific uses are described for each of the 28 genes, based
CC   on the tissues in which they are most highly expressed and include
CC   developing products for the diagnosis or treatment of immunodeficiencies,
CC   e.g., X-linked agammaglobulinaemia, B cell immunodeficiencies, severe
CC   combined immunodeficiencies, autoimmune disorders e.g., systemic lupus
CC   erythematosus, rheumatoid arthritis, multiple sclerosis, autoimmune
CC   thyroiditis, autoimmune haemolytic anaemia, Goodpasture's syndrome,
CC   Grave's disease, diabetes mellitus, dermatitis, inflammatory conditions
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CC   including septic shock, sepsis, reperfusion injury, inflammatory bowel
CC   disease, Crohn's disease, haematopoietic disorders, respiratory
CC   disorders e.g., asthma and allergy, gastrointestinal disorders e.g.,
CC   inflammatory bowel disease), cancers e.g., gastric, ovarian, lung,
CC   liver, bladder and breast), central nervous system (CNS) disorders e.g.,
CC   ischaemic brain injury and/or stroke, neurodegenerative disorders e.g.,
CC   Parkinson's disease and Alzheimer's disease, AIDS-related dementia and
CC   prion disease, cardiovascular disorders e.g., myocarditis, arrhythmias,
CC   atherosclerosis, inflammatory disorders e.g., hepatitis, gout, trauma,
CC   pancreatitis, sarcoidosis and allogenic transplant rejection, blood-
CC   related disorder (thrombosis, arterial thrombosis, atherosclerosis),
CC   hyperproliferative disorders, respiratory disorders e.g. rhinitis,
CC   sinusitis, tonsilitis, lung cancer, allergic disorders, pneumonitis,
CC   renal disorders. e.g. acute glomerulonephritis, neurological diseases,
CC   liver disorders, endocrine disorders e.g., hyperthyroidism, Addison's
CC   disease, hyperpituitarism, infectious diseases and reproductive system
CC   disorders e.g. endometriosis. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 296;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-273;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 3
AAE27121
ID   AAE27121 standard; Protein; 298 AA.
XX
AC   AAE27121;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; secreted protein; autoimmune disease; hyperproliferative disorder;
KW   rheumatoid arthritis; neoplasm; cerebrovascular disorder; angiogenesis;
KW   cerebral ischaemia; cardiovascular disorder; nervous system disorder;
KW   cardiac arrest; Alzheimer's disease; ocular disorder; wound healing;
KW   infection; corneal infection; skin aging; food additive; preservative;
KW   tissue regeneration; immunosuppressive; antiproliferative; cytostatic;
KW   cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective;
KW   antibacterial; virucide; fungicide; ophthalmological; gene therapy;
KW   vulnerary.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Mature human secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002076756-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0853161.
XX
PR   02-FEB-2001; 2001US-265583P.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
PA   (MOOR/) MOORE P A.
PA   (YOUN/) YOUNG P E.
PA   (GREE/) GREENE J M.
PA   (FERR/) FERRIE A M.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-574454/61.
DR   N-PSDB; AAD44878.
XX
PT   New nucleic acid molecules encoding 28 human secreted proteins, useful
PT   for diagnosing, preventing, treating or ameliorating medical conditions
PT   and as food additives or preservatives  -
XX
PS   Claim 11; Page 186-187; 209pp; English.
XX
CC   AAD44854-AAD44984 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE27097-AAE27137 represent the proteins they encode.
CC   AAE27138-AAE27164 represent human secreted protein fragments. The genes
CC   and their corresponding secreted proteins are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Secreted protein sequences of the invention are useful for the
CC   diagnosis or treatment of disorders such as autoimmune diseases (e.g.
CC   rheumatoid arthritis), hyperproliferative disorders (e.g. neoplasms of
CC   the breast or liver), cerebrovascular disorders (e.g. cerebral ischaemia,
CC   angiogenesis), cardiovascular disorders (e.g. cardiac arrest), nervous
CC   system disorders (e.g. Alzheimer's disease), infections caused by fungi,
CC   bacteria and viruses and ocular disorders (e.g. corneal infection). The
CC   polypeptides can also be used to aid wound healing and epithelial cell
CC   proliferation, to prevent skin aging due to sunburn, to maintain organs
CC   before transplantation, for supporting cell culture of primary tissues,
CC   to regenerate tissues and in chemotaxis. They can also be used as food
CC   additives or preservative to increase or decrease storage capabilities,
CC   fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors
CC   and other nutritional components. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 296;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-273;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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```
Qy          61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy         121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy         181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy         241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 4
ABR47926
ID ABR47926 standard; Protein; 298 AA.
XX
AC ABR47926;
XX
DT 12-JUN-2003 (first entry)
XX
DE Human secreted protein, SEQ ID 817.
XX
KW Cardiant; antiarrhythmic; antiarteriosclerotic; vasotropic; cytostatic;
KW vulnerary; antiinflammatory; nootropic; neuroprotective;
KW antiparkinsonian; gene therapy; human; cardiovascular disorder.
XX
OS Homo sapiens.
XX
PN WO200295010-A2.
XX
PD 28-NOV-2002.
XX
PF 19-MAR-2002; 2002WO-US09785.
XX
PR 21-MAR-2001; 2001US-277340P.
PR 19-JUL-2001; 2001US-306171P.
PR 13-NOV-2001; 2001US-331287P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-129429/12.
XX
PT Novel human secreted proteins, useful for detecting, preventing,
PT diagnosing, prognosticating, treating and/or ameliorating
PT cardiovascular disorders such as arrhythmia -
XX
PS Claim 13; SEQ ID 817; 1881pp; English.
XX
CC The present invention relates to novel human secreted proteins
CC (ABR47633-ABR48145) and their coding sequences (ACC50344-ACC50856). The
CC proteins and their coding sequences are useful for the preparation of a
CC diagnostic or pharmaceutical composition for diagnosing or treating a
CC cardiovascular disorder (e.g., arrhythmia, tachycardia, cardiac arrest,
CC coronary arteriosclerosis and myocardial ischaemia), neural disorders,
CC immune system disorders, muscular disorders, reproductive disorders,
CC gastrointestinal disorders, pulmonary disorders, renal disorders,
CC proliferative disorders and/or cancerous diseases and conditions, for
CC wound healing and epithelial cell proliferation, to treat inflammation or
CC infection, for treating thrombosis and arteriosclerosis, for treating or
CC preventing neural damage which occurs in neuronal disorders or
CC neurodegenerative conditions such as Alzheimer's disease and Parkinson's
CC disease, to enhance bone and periodontal regeneration and aid in tissue
CC transplants or bone grafts, to prevent skin aging or hair loss, to
CC stimulate growth and differentiation of haematopoietic cells and bone
CC marrow cells when used in combination with other cytokines, to maintain
CC organs before transplantation or for supporting cell culture of primary
CC tissues, to increase or decrease differentiation or proliferation of
CC embryonic stem cells, or to modulate mammalian characteristics or
CC metabolism.
CC Note: The sequence data for this patent was published in electronic
CC format and is available from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 298 AA;

Query Match 99.3%; Score 296; DB 24; Length 298;
Best Local Similarity 100.0%; Pred. No. 2.5e-273;
Matches 298; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy           1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db           1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy          61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy         121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy         181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy         241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 5
ABU64994
ID ABU64994 standard; Protein; 298 AA.
XX
AC ABU64994;
XX
DT 15-MAY-2003 (first entry)
XX
DE Human secreted protein gene 25, protein.
XX
KW Secreted protein; immunodeficiency; multiple sclerosis;
KW severe combined immunodeficiency; autoimmune disorder; cancer;
KW rheumatoid arthritis; diabetes mellitus; haematopoietic disorder;
KW inflammatory condition; septic shock; inflammatory bowel disease;
KW Crohn's disease; respiratory disorder; asthma; allergy; stroke;
KW gastrointestinal disorder; central nervous system disorder;
KW ischaemic brain injury; neurodegenerative disorder; Parkinson's disease;
KW Alzheimer's disease; cardiovascular disorder; atherosclerosis;
KW blood-related disorder; thrombosis; atherosclerosis; renal disorder;
KW hyperproliferative disorder; acute glomerulonephritis; Addison's disease;
KW endocrine disorder; liver disease; reproductive system disorder;
KW endometriosis; infectious disease; pancreatic disorder; vaccine;
KW wound repair; angiogenesis; lymphatic disorder; hair loss; body weight;
KW body height; hair colour; human.
XX
OS Homo sapiens.
XX
PN US2002172994-A1.
XX
PD 21-NOV-2002.
XX
PF 11-MAY-2001; 2001US-0852797.
XX
PR 14-MAR-1997; 97US-040710P.
PR 14-MAR-1997; 97US-040762P.
PR 30-MAY-1997; 97US-048100P.
PR 30-MAY-1997; 97US-048189P.
PR 30-MAY-1997; 97US-048357P.

PR 30-MAY-1997; 97US-050934P.
PR 06-JUN-1997; 97US-048970P.
PR 05-SEP-1997; 97US-057765P.
PR 19-DEC-1997; 97US-068368P.
PR 02-FEB-2001; 2001US-265583P.
PR 12-MAR-1998; 98WO-US04858.
PR 11-SEP-1998; 98US-0152060.
XX
PA (RUBE/) RUBEN S M.
PA (ROSE/) ROSEN C A.
PA (LIYY/) LI Y.
PA (ZENG/) ZENG Z.
PA (KYAW/) KYAW H.
PA (FISC/) FISCHER C L.
PA (LIHH/) LI H.
PA (SOPP/) SOPPET D R.
PA (GENT/) GENTZ R L.
PA (WEIY/) WEI Y.
PA (MOOR/) MOORE P A.
PA (YOUN/) YOUNG P E.
PA (GREE/) GREENE J M.
PA (FERR/) FERRIE A M.
XX
PI Ruben SM, Rosen CA, Li Y, Zeng Z, Kyaw H, Fischer CL, Li H;
PI Soppet DR, Gentz RL, Wei Y, Moore PA, Young PE, Greene JM;
PI Ferrie AM;
XX
DR WPI; 2003-310989/30.
DR N-PSDB; ABX96990.
XX
PT New human secreted polypeptides and polynucleotides for diagnosing,
PT prognosing, preventing and treating immune, hyperproliferative, liver,
PT kidney, reproductive disorders and for identifying modulators of
PT therapeutic use -
XX
PS Claim 11; Page 186; 209pp; English.
XX
CC The invention relates to an isolated polypeptide comprising an amino acid
CC sequence at least 95% identical to sequence of 28 human secreted
CC proteins, their fragment, polypeptide domain, epitope, secreted form,
CC variant, allelic variant, or species homologue, or the encoded sequence
CC included in ATCC 97921 and 97922. Also included are the encoding
CC nucleic acids, recombinant vectors, host cells, antibodies, and genes.
CC The proteins and nucleic acids are useful for diagnosing, preventing,
CC treating, prognosing or ameliorating a medical condition e.g.
CC immunodeficiencies (e.g. X-linked agammaglobulinaemia, B cell
CC immunodeficiencies, severe combined immunodeficiencies), autoimmune
CC disorders (e.g. systemic erythematosus, rheumatoid arthritis, multiple
CC sclerosis, autoimmune thyroiditis, autoimmune haemolytic anaemia,
CC Goodpasture's syndrome, Grave's disease, diabetes mellitus, dermatitis),
CC haematopoietic disorders, inflammatory conditions (e.g. septic shock,
CC sepsis, reperfusion injury, inflammatory bowel disease, Crohn's disease),
CC respiratory disorders (e.g. asthma and allergy), gastrointestinal
CC disorders, cancers (e.g. gastric, ovarian, lung, bladder, liver and
CC breast), central nervous system (CNS) disorders (e.g. ischaemic brain
CC injury and/or stroke, traumatic brain injury), neurodegenerative
CC disorders (e.g. Parkinson's disease and Alzheimer's disease, AIDS-related
CC dementia, and prion disease), cardiovascular disorders (e.g.
CC atherosclerosis, myocarditis, cardiovascular disease, and cardiopulmonary
CC bypass complications), inflammation (e.g. hepatitis, gout, trauma,
CC pancreatitis, sarcoidosis, dermatitis, allogenic transplant rejection),
CC blood-related disorders (thrombosis, arterial thrombosis),
CC hyperproliferative disorders, renal disorders (e.g. acute
CC glomerulonephritis), endocrine disorders (e.g. Addison's disease,
CC hyperthyroidism, hyperpituitarism), liver diseases and disorders,
CC reproductive system disorders (e.g. endometriosis), infectious diseases,
CC and pancreatic disorders. Many other diseases and disorders are listed in
CC the specification. They also useful as a vaccine adjuvant. Further they
CC are useful to enhance or inhibit complement mediated cell lysis, for
CC stimulating wound and tissue repair, angiogenesis, and the repair of
CC vascular or lymphatic diseases or disorders. They are also useful
CC to prevent hair loss, to modulate mammalian characteristics such as body
CC height, weight, hair colour, and to increase or decrease storage
CC capabilities, fat content, lipid, protein, carbohydrate, vitamins,
CC minerals, cofactors or other nutritional components. The proteins are
CC also useful for identifying binding partners. The present sequence
CC represents a secreted protein of the invention.
XX
SQ Sequence 298 AA;

Query Match 99.3%; Score 296; DB 24; Length 298;
Best Local Similarity 100.0%; Pred. No. 2.5e-273;
Matches 298; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 6
ABR00172
ID ABR00172 standard; Protein; 298 AA.
XX
AC ABR00172;
XX
DT 03-APR-2003 (first entry)
XX
DE Human gene 162 encoded secreted protein HTEEB42, SEQ ID NO:461.
XX
KW Human; secreted protein; digestive disorder; gastrointestinal disorder;
KW mouth; oesophagus; stomach; small intestine; large intestine; liver;
KW biliary tract; pancreas; cancer; tumour; hyperproliferative disorder;
KW immune disorder; inflammation; infection; wound healing; drug screening;
KW chromosome identification; chromosome mapping; cytostatic; gene therapy;
KW antiinflammatory; immunosuppressive; vulnerary; chromosome 21q21.2.
XX
OS Homo sapiens.
XX
PN WO200276488-A1.
XX
PD 03-OCT-2002.
XX
PF 19-MAR-2002; 2002WO-US08276.
XX
PR 21-MAR-2001; 2001US-277340P.
PR 19-JUL-2001; 2001US-306171P.
PR 13-NOV-2001; 2001US-331287P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-029900/02.
DR N-PSDB; ABZ71351.
XX
PT New human secreted proteins and nucleic acids, useful for detecting,
PT preventing, diagnosing, prognosticating, treating and/or ameliorating
PT e.g. gastrointestinal diseases and disorders, or cancers -
XX
PS Claim 13; Page 1046-1047; 1216pp; English.

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XX
CC   ABZ71190-ABZ71478 represent cDNAs corresponding to 178 human secreted
CC   protein genes, and ABP00011-ABP00299 represent the proteins they encode.
CC   ABZ71479-ABZ71540 represent human secreted protein genomic fragments. The
CC   invention also encompasses antibodies specific for the secreted proteins,
CC   the use of the secreted proteins in drug screening, and recombinant
CC   vectors and host cells comprising a nucleic acid of the invention. The
CC   secreted proteins, nucleic acids encoding them, antibodies or antibody
CC   fragments specific for the secreted proteins, and modulators of protein
CC   activity are useful for diagnosing, treating, ameliorating or preventing
CC   digestive disorders. Such conditions include disorders of the mouth,
CC   oesophagus, stomach, small intestine, large intestine, liver, biliary
CC   tract and pancreas, and include cancers of these organs and tissues. The
CC   secreted proteins and their nucleic acids may also be used in the
CC   treatment of immune disorders, inflammation, infection,
CC   hyperproliferative disorders, and to promote wound healing. Nucleic acids
CC   of the invention may be used for chromosome identification, chromosome
CC   mapping, in gene therapy, for identifying individuals from minute
CC   biological samples, as hybridisation probes, and as molecular weight
CC   markers. The present sequence represents a human secreted protein of the
CC   invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 296;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-273;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180

Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 7
AAW85457
ID   AAW85457 standard; Protein; 298 AA.
XX
AC   AAW85457;
XX
DT   25-FEB-1999  (first entry)
XX
DE   Secreted protein encoded by clone ct864_4.
XX
KW   Secreted protein; nutritional activity; immune stimulating; vaccine;
KW   suppressing activity; haematopoiesis regulating activity;
KW   tissue growth activity; activin; inhibin activity; chemotactaxis;
KW   chemokinetic activity; haemostasis; thrombolytic activity; receptor;
KW   ligand; anti-inflammatory; cadherin; tumour invasion suppressor;
KW   tumour inhibition; gene therapy.
XX
OS   Homo sapiens.
XX
PN   WO9842739-A2.
XX
PD   01-OCT-1998.
XX
PF   20-MAR-1998;   98WO-US05653.
XX
PR   19-MAR-1998;   98US-0044466.
PR   21-MAR-1997;   97US-0822167.
XX
PA   (GEMY ) GENETICS INST INC.
XX
PI   Agostino MJ,  Jacobs K,  Lavallie ER,  McCoy JM,  Merberg D;
PI   Racie LA,  Spaulding V,  Treacy M;
XX
DR   WPI; 1998-609890/51.
DR   N-PSDB; AAV82780.
XX
PT   New polynucleotides encoding secreted human proteins - derived from
PT   human foetal brain, adult brain, foetal kidney, placenta or adult
PT   pineal gland cDNA libraries.
XX
PS   Claim 17; Page 73-74; 113pp; English.
XX
CC   The present sequence represents a secreted protein. The polynucleotide
CC   and secreted protein are predicted to have biological activities which
CC   would make them suitable for treating, preventing or ameliorating medical
CC   conditions in humans and animals, although no supporting data is given.
CC   Suggested activities include nutritional activity, immune stimulating
CC   (e.g. as vaccines) or suppressing activity, haematopoiesis regulating
CC   activity, tissue growth activity, activin/inhibin activity,
CC   chemotactic/chemokinetic activity, haemostatic and thrombolytic activity,
CC   receptor/ligand activity, anti-inflammatory activity, cadherin/tumour
CC   invasion suppressor activity, and tumour inhibition activity (no data is
CC   given in the specification to support these activities). The
CC   polynucleotide is also stated to be useful for gene therapy.
XX
SQ   Sequence   298 AA;

  Query Match             80.5%;  Score 240;  DB 19;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 5.2e-220;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 8
AAU00512
ID   AAU00512 standard; Protein; 298 AA.
XX
AC   AAU00512;
XX
DT   09-MAY-2001  (first entry)
XX
DE   Human junctional adhesion protein (JAM2).
XX
KW   Junctional adhesion protein; JAM2; cellular localisation;
KW   cellular expression; immunoprecipitation; stroke; phosphorylation;
KW   glycosylation; paracellular migration; inflammatory disease;
KW   arthritis; asthma; rheumatoid arthritis; inflammatory bowel disease;
KW   Crohn's disease.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
```

```
FT   Peptide          1..20
FT                    /note= "Possible signal peptide #1"
FT   Peptide          1..28
FT                    /note= "Possible signal peptide #2"
FT   Protein          21..298
FT                    /note= "Possible mature JAM2 #1"
FT   Protein          29..298
FT                    /note= "Possible mature JAM2 #2"
FT   Domain           237..254
FT                    /note= "Transmembrane domain"
XX
PN   WO200114404-A1.
XX
PD   01-MAR-2001.
XX
PF   23-AUG-2000; 2000WO-US23158.
XX
PR   24-AUG-1999;   99US-0150459.
XX
PA   (TEXA-) TEXAS BIOTECHNOLOGY CORP.
XX
PI   Cunningham S,  Trindad Arrate Barros M;
XX
DR   WPI; 2001-218425/22.
DR   N-PSDB; AAS00512.
XX
PT   Novel nucleic acids encoding human junctional adhesion protein useful
PT   for producing antibodies that are suitable for therapeutic purposes -
XX
PS   Claim 4; Page 46-47; 51pp; English.
XX
CC   The sequence represents a human junctional adhesion molecule 2 (JAM2).
CC   The polynucleotide encoding the polypeptide is useful for recombinant
CC   production of JAM-2 protein, which in turn is useful for the production
CC   of antibodies. The antibodies may be used for probing cellular
CC   localisation and/or expression of JAM2 in tissues under normal and
CC   disease states, for immunoprecipitating JAM2 protein from cells and/or
CC   stroke tissues to determine whether it is modified by glycosylation and
CC   phosphorylation, and for determining JAM2 function. The antibodies
CC   inhibit interaction of JAM2 with inflammatory cells or influences their
CC   paracellular migration, and is therefore useful for alleviating
CC   inflammatory diseases such as arthritis, asthma, rheumatoid arthritis,
CC   inflammatory bowel disease and Crohn's disease.
XX
SQ   Sequence   298 AA;

  Query Match             80.5%;  Score 240;  DB 22;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 5.2e-220;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 9
ABP61801
ID   ABP61801 standard; Protein; 298 AA.
XX
AC   ABP61801;
XX
DT   04-OCT-2002  (first entry)
XX
DE   Human polypeptide SEQ ID NO 155.
XX
KW   Human; cytostatic; antirheumatic; antiarthritic; vulnerary; analgesic;
KW   antiinflammatory; antibacterial; immunosuppressive; antiparkinsonian;
KW   neuroprotective; nootropic; osteopathic; haemostatic; vasotropic;
KW   antiulcer; fungicide; antidiabetic; antiasthmatic; antiallergic;
KW   immunostimulant; antiparasitic; secreted protein; transmembrane protein;
KW   cytokine; cell proliferation; cell differentiation; autoimmune disease;
KW   stem cell; growth factor; nervous system disease; neuropathy;
KW   Alzheimer's disease; Parkinson's disease; Huntington's disease;
KW   osteoporosis; severe combined immunodeficiency; SCID; infection;
KW   multiple sclerosis; rheumatoid arthritis; gene therapy.
XX
OS   Homo sapiens.
XX
PN   US2002065394-A1.
XX
PD   30-MAY-2002.
XX
PF   22-DEC-2000; 2000US-0745763.
XX
PR   18-MAR-1998;   98US-0040963.
XX
PA   (JACO/) JACOBS K.
PA   (MCCO/) MCCOY J M.
PA   (LAVA/) LAVALLIE E R.
PA   (COLL/) COLLINS-RACIE L A.
PA   (EVAN/) EVANS C.
PA   (MERB/) MERBERG D.
PA   (TREA/) TREACY M.
PA   (SPAU/) SPAULDING V.
XX
PI   Jacobs K,  McCoy JM,  LaVallie ER,  Collins-Racie LA,  Evans C;
PI   Merberg D,  Treacy M,  Spaulding V;
XX
DR   WPI; 2002-582343/62.
DR   N-PSDB; ABQ92017.
XX
PT   Novel secreted or transmembrane protein and polynucleotide encoding the
PT   protein, useful for diagnosis and treatment of neurological disorders,
PT   cancer, autoimmune diseases, bone disorders and lung or liver fibrosis
PT   -
XX
PS   Claim 54; Page 116-117; 284pp; English.
XX
CC   The invention relates to human secreted or transmembrane protein (I),
CC   their fragments and is encoded by specific complementary deoxyribonucleic
CC   acid (cDNA) inserts (II), where the protein is substantially free from
CC   other mammalian proteins. (I) are useful for preventing, treating or
CC   ameliorating a medical condition, especially immunological treatment or
CC   prevention of tumours. (I) exhibits activity relating to angiogenesis,
CC   cytokine, cell proliferation, cell differentiation, antiinflammatory,
CC   stem cell growth factor activity and activin or inhibin-related
CC   activities. (I) can be used to manipulate stem cells in culture to give
CC   rise to neuroepithelial cells that can be used to augment or replace
CC   cells damaged by illness, autoimmune disease, accidental damage or
CC   genetic disorders. (I) induces the proliferation of neural cells and
CC   regeneration of nerve and brain tissue and is useful for the treatment of
CC   central and peripheral nervous system diseases and neuropathies, such as
CC   Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC   lateral sclerosis. (I) is involved in chemotactic or chemokinetic
CC   activity, regulation of haematopoiesis and is useful for treating myeloid
CC   or lymphoid cell disorders, platelet disorders such as thrombocytopaenia
CC   and for regeneration of bone, cartilage, tendon, ligament and/or nerve
CC   tissue growth and in tissue repair, healing of burns, incisions, ulcers,
CC   for treating osteoporosis, osteoarthritis, bone degenerative disorders or
CC   periodontal disease. (I) is also useful for gut protection or
CC   regeneration and treatment of lung or liver fibrosis, reperfusion injury
CC   in various tissues, various immune deficiencies and disorders including
CC   severe combined immunodeficiency (SCID), bacterial or fungal infections,
CC   autoimmune disorders e.g. multiple sclerosis, rheumatoid arthritis,
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CC   diabetes mellitus, myasthenia gravis, allergic reactions and conditions,
CC   such as asthma or other respiratory problems. (II) is useful to express
CC   recombinant protein, as markers for tissues in which the corresponding
CC   protein is preferentially expressed and in gene therapy. The present
CC   sequence is that of a polypeptide of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             80.5%;  Score 240;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 5.2e-220;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 10
AAO16452
ID   AAO16452 standard; protein; 298 AA.
XX
AC   AAO16452;
XX
DT   17-APR-2003  (first entry)
XX
DE   Human junctional adhesion molecule 2 (huJAM2).
XX
KW   Human; gene therapy; extracellular region; junctional adhesion molecules;
KW   huJAM; immune system disorder; immune deficiency; autoimmune disorder;
KW   inflammatory disorder; cancer; wound healing; cardiovascular disease;
KW   full-length membrane-bound huJAM protein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..28
FT                   /label= Signal_peptide
FT   Domain          29..236
FT                   /note= "Extracellular domain; Specifically claimed
FT                   region"
FT   Protein         29..298
FT                   /note= "Mature huJAM2"
XX
PN   WO2003008541-A2.
XX
PD   30-JAN-2003.
XX
PF   05-JUL-2002; 2002WO-US19800.
XX
PR   16-JUL-2001; 2001US-305752P.
PR   05-FEB-2002; 2002US-354345P.
XX
PA   (ELIL ) LILLY & CO ELI.
XX
PI   Heuer JG,  Smith RC,  Su EW;
XX
DR   WPI; 2003-221848/21.
DR   N-PSDB; AAL51599.
XX
PT   New extracellular human junctional adhesion molecule (huJAM)
PT   polypeptide, useful for treating an immune system disorder such as an
PT   immune deficiency or an inflammatory disorder, cancer, wound healing,
PT   or a cardiovascular disease -
XX
PS   Disclosure; Fig 1; 131pp; English.
XX
CC   The invention comprises the DNA and protein sequences of the
CC   extracellular region of human junctional adhesion molecules (huJAM). The
CC   extracellular huJAM DNA and protein sequences are useful in the treatment
CC   of: immune system disorders (e.g. immune deficiency); autoimmune
CC   disorders; inflammatory disorders; cancer; wound healing; or a
CC   cardiovascular disease. The present amino acid sequence represents the
CC   full-length membrane-bound huJAM2 protein.
XX
SQ   Sequence   298 AA;

  Query Match             80.5%;  Score 240;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 5.2e-220;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 11
AAY08060
ID   AAY08060 standard; Protein; 312 AA.
XX
AC   AAY08060;
XX
DT   11-SEP-2000  (first entry)
XX
DE   Human PRO245 protein.
XX
KW   Inflammatory cell infiltration; immune response; T cell proliferation;
KW   anti-inflammatory; anti-autoimmune; anti-diabetic; spondyloarthropathy;
KW   T cell-mediated disease; spondyloarthropathy; sclerosis; renal disease;
KW   inflammatory myopathy; hemolytic anemia; thrombocytopenia; thyroiditis;
KW   diabetes mellitus; demyelinating polyneuropathy; Guillain-Barre syndrome;
KW   multiple sclerosis; polyneuropathy; hepatitis; cirrhosis; enteropathy;
KW   sclerosing cholangitis; inflammatory bowel disease; Whipple's disease;
KW   skin disease; dermatitis; psoriasis; asthma; allergic rhinitis; tumor;
KW   food hypersensitivity; urticaria; eosinophilic pneumonia; transplant;
KW   idiopathic pulmonary fibrosis; graft rejection; PRO245; human.
XX
OS   Homo sapiens.
XX
PN   WO9914241-A2.
XX
PD   25-MAR-1999.
XX
PF   17-SEP-1998;   98WO-US19437.
XX
PR   17-SEP-1997;   97US-0059119.
PR   18-SEP-1997;   97US-0059263.
PR   28-OCT-1997;   97US-0063550.
PR   12-NOV-1997;   97US-0065186.
PR   21-NOV-1997;   97US-0066364.
PR   24-NOV-1997;   97US-0066770.
PR   04-JUN-1998;   98US-0088026.
XX
```

PA (GETH) GENENTECH INC.
XX
PI Fong S, Goddard A, Gurney AL, Tumas D, Wood WI;
XX
DR WPI; 1999-229499/19.
DR N-PSDB; AAX37664.
XX
PT Composition containing novel polypeptide PRO245, its agonist or
PT antagonist -
XX
PS Example 1; Fig 2; 177pp; English.
XX
CC This invention describes a novel composition containing (apart from a
CC carrier or excipient), a novel PRO245 polypeptide (I), its agonist or
CC antagonist, or their fragments, for modulating: (i) infiltration of
CC inflammatory cells into tissue; (ii) an immune response; or (iii) T cell
CC proliferation. The composition increases or decreases any of the effects
CC (i)-(iii). The products of the invention have anti-inflammatory,
CC anti-autoimmune and anti-diabetic activity. (I), and its (ant)agonists
CC and their fragments, are used to treat immune-related diseases,
CC particularly T cell-mediated diseases. The diseases treated include
CC systemic lupus erythematosus, rheumatoid arthritis, juvenile chronic
CC arthritis, spondyloarthropathies, systemic sclerosis (scleroderma),
CC idiopathic inflammatory myopathies (dermatomyositis, polymyositis),
CC Sjogren's syndrome, systemic vasculitis, sarcoidosis, autoimmune
CC hemolytic anemia (immune pancytopenia, paroxysmal nocturnal
CC hemoglobinuria), autoimmune thrombocytopenia (idiopathic thrombocytopenic
CC purpura immune-mediated thrombocytopenia), thyroiditis (Grave's disease,
CC Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC thyroiditis), diabetes mellitus, immune-mediated renal disease
CC (glomerulonephritis, tubulointerstitial nephritis), multiple sclerosis,
CC idiopathic demyelinating polyneuropathy, Guillain-Barre syndrome, chronic
CC inflammatory demyelinating polyneuropathy, infectious hepatitis
CC (hepatitis A, B, C, D, E and other non-hepatotropic viruses), autoimmune
CC chronic active hepatitis, primary biliary cirrhosis, granulomatous
CC hepatitis, and sclerosing cholangitis, inflammatory bowel disease
CC (ulcerative colitis: Crohn's disease), gluten-sensitive enteropathy, and
CC Whipple's disease. Autoimmune or immune-mediated skin diseases including
CC bullous skin diseases, erythema multiforme,contact dermatitis, psoriasis,
CC asthma, allergic rhinitis, atopic dermatitis, food hypersensitivity,
CC urticaria, eosinophilic pneumonia, idiopathic pulmonary fibrosis,
CC hypersensitivity pneumonitis, and transplantation associated diseases
CC (graft rejection, and graft-versus-host-disease). (I), its (ant)agonists
CC or fragment can also be used as an adjuvant in treatment of tumors.
CC Antibodies against (I) can also be used for diagnosing such diseases.
CC This sequence represents the human PRO245 protein described in the
CC invention.
XX
SQ Sequence 312 AA;

Query Match 77.2%; Score 230; DB 20; Length 312;
Best Local Similarity 100.0%; Pred. No. 1.8e-210;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
```

RESULT 12
AAY23324

ID AAY23324 standard; Protein; 312 AA.
XX
AC AAY23324;
XX
DT 02-SEP-1999 (first entry)
XX
DE A33 related antigen PRO245.
XX
KW A33 related antigen; PRO301; PRO362; PRO245; inflammatory disease;
KW tumour.
XX
OS Homo sapiens.
XX
PN WO9927098-A2.
XX
PD 03-JUN-1999.
XX
PF 20-NOV-1998; 98WO-US24855.
XX
PR 17-SEP-1998; 98WO-US19437.
PR 21-NOV-1997; 97US-0066364.
PR 20-MAR-1998; 98US-0078936.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi A, Fong S, Goddard A, Gurney AL, Napier MA;
PI Tumas D, Wood WI;
XX
DR WPI; 1999-404743/34.
DR N-PSDB; AAX81770.
XX
PT Antigens PRO301, PRO362 and PRO245 related to A33
XX
PS Example 3; Fig 11; 122pp; English.
XX
CC The specification describes A33 related antigens PRO301, PRO362 and
CC PRO245. The methods and compositions of the invention are useful for the
CC treatment and diagnosis of inflammatory disease and tumours in mammals.
CC Such inflammatory diseases include of inflammatory bowel disease,
CC systemic lupus erythematosis, rheumatoid arthritis, juvenile chronic
CC arthritis, spondyloarthropathies, systemic sclerosis, scleroderma,
CC idiopathic inflammatory myopathies, dermatomyositis, polymyositis,
CC Sjogren's syndrome, systemic vaculitis, sarcoidosis, autoimmune hemolytic
CC anemia, immune pancytopenia, paroxysmal nocturnal hemoglobinuria,
CC autoimmune thrombocytopenia, idiopathic thrombocytopenic purpura,
CC immune-mediated thrombocytopenia, thyroiditis, Grave's disease,
CC Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC thyroiditis, diabetes mellitus, immune-mediated renal disease,
CC glomerulonephritis, tubulointerstitial nephritis, demyelinating diseases
CC of the central and peripheral nervous systems such as multiple sclerosis,
CC idiopathic polyneuropathy, hepatobiliary diseases, infectious hepatitis
CC A, B, C, D, E, nonhepatotropic viruses, autoimmune chronic active
CC hepatitis, primary biliary cirrhosis, granulomatous hepatitis, sclerosing
CC cholangitis, inflammatory and fibrotic lung diseases, gluten-sensitive
CC enteropathy, Whipple's disease, autoimmune or immune-mediated skin
CC diseases allergic diseases of the lung such as eosinophilic pneumonias,
CC idiopathic pulmonary fibrosis and hypersensitivity pneumonitis
CC transplantation associated diseases disease. The present sequence
CC represents PRO245.
XX
SQ Sequence 312 AA;

Query Match 77.2%; Score 230; DB 20; Length 312;
Best Local Similarity 100.0%; Pred. No. 1.8e-210;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 13
AAY13354
ID   AAY13354 standard; Protein; 312 AA.
XX
AC   AAY13354;
XX
DT   25-JUN-1999  (first entry)
XX
DE   Amino acid sequence of protein PRO245.
XX
KW   Secreted protein; transmembrane protein; human; enterocolitis;
KW   Zollinger-Ellison syndrome; gastrointestinal ulceration;
KW   congenital microvillus atrophy; skin disease; cell growth;
KW   abnormal keratinocyte differentiation; psoriasis; epithelial cancer;
KW   Parkinson's disease; Alzheimer's disease; ALS; neuropathy;
KW   fibromodulin; dermal scarring; Usher Syndrome; Atrophia areata;
KW   anti-thrombotic; wound healing; tissue repair.
XX
OS   Homo sapiens.
XX
PN   WO9914328-A2.
XX
PD   25-MAR-1999.
XX
PF   16-SEP-1998;   98WO-US19330.
XX
PR   25-NOV-1997;   97US-0066840.
PR   17-SEP-1997;   97US-0059113.
PR   17-SEP-1997;   97US-0059115.
PR   17-SEP-1997;   97US-0059117.
PR   17-SEP-1997;   97US-0059119.
PR   17-SEP-1997;   97US-0059121.
PR   17-SEP-1997;   97US-0059122.
PR   17-SEP-1997;   97US-0059184.
PR   18-SEP-1997;   97US-0059263.
PR   18-SEP-1997;   97US-0059266.
PR   15-OCT-1997;   97US-0062125.
PR   17-OCT-1997;   97US-0062285.
PR   17-OCT-1997;   97US-0062287.
PR   21-OCT-1997;   97US-0063486.
PR   24-OCT-1997;   97US-0062814.
PR   24-OCT-1997;   97US-0062816.
PR   24-OCT-1997;   97US-0063045.
PR   24-OCT-1997;   97US-0063120.
PR   24-OCT-1997;   97US-0063121.
PR   24-OCT-1997;   97US-0063127.
PR   24-OCT-1997;   97US-0063128.
PR   27-OCT-1997;   97US-0063329.
PR   27-OCT-1997;   97US-0063327.
PR   28-OCT-1997;   97US-0063541.
PR   28-OCT-1997;   97US-0063542.
PR   28-OCT-1997;   97US-0063544.
PR   28-OCT-1997;   97US-0063549.
PR   28-OCT-1997;   97US-0063550.
PR   28-OCT-1997;   97US-0063564.
PR   29-OCT-1997;   97US-0063435.
PR   29-OCT-1997;   97US-0063704.
PR   29-OCT-1997;   97US-0063732.
PR   29-OCT-1997;   97US-0063738.
PR   29-OCT-1997;   97US-0063734.
PR   29-OCT-1997;   97US-0064215.
PR   29-OCT-1997;   97US-0063735.
PR   31-OCT-1997;   97US-0063870.
PR   31-OCT-1997;   97US-0064103.
PR   03-NOV-1997;   97US-0064248.
PR   07-NOV-1997;   97US-0064809.
PR   12-NOV-1997;   97US-0065186.
PR   17-NOV-1997;   97US-0065846.
PR   18-NOV-1997;   97US-0065693.
PR   21-NOV-1997;   97US-0066120.
PR   21-NOV-1997;   97US-0066364.
PR   24-NOV-1997;   97US-0066772.
PR   24-NOV-1997;   97US-0066466.
PR   24-NOV-1997;   97US-0066770.
PR   24-NOV-1997;   97US-0066511.
PR   24-NOV-1997;   97US-0066453.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Chen J,  Goddard A,  Gurney AL,  Pennica D,  Wood WI,  Yuan J;
XX
DR   WPI; 1999-229533/19.
DR   N-PSDB; AAX52225.
XX
PT   New isolated human genes and polypeptides used in, e.g. treatment of
PT   gastrointestinal ulceration
XX
PS   Claim 12; Fig 24; 320pp; English.
XX
CC   AAY13344-403 represent secreted and transmembrane human proteins.
CC   The cDNA sequences are obtained from cDNA libraries, prepared from
CC   fetal lung, fetal kidney, fetal brain, fetal liver and fetal retina.
CC   The encoded polypeptides have specific uses based on their homology to
CC   known polypeptides, e.g. PRO211 and PRO217 can be used for disorders
CC   associated with the preservation and maintenance of gastrointestinal
CC   mucosa and the repair of acute and chronic mucosal lesions
CC   (e.g. enterocolitis, Zollinger-Ellison syndrome, gastrointestinal
CC   ulceration and congenital microvillus atrophy), skin diseases associated
CC   with abnormal keratinocyte differentiation (e.g. psoriasis, epithelial
CC   cancers such as lung squamous cell carcinoma of the vulva and gliomas),
CC   potent effects on cell growth and development, diseases related to
CC   growth or survival of nerve cells including Parkinson's disease,
CC   Alzheimer's disease, ALS, neuropathies or cancer. PRO265 can be used as
CC   for fibromodulin, e.g. for reducing dermal scarring.  PRO264 can be used
CC   as a target for anti-tumor drugs. PRO533 may be used in the treatment
CC   of Usher Syndrome or Atrophia areata; PRO269 can be used as an
CC   anti-thrombotic agent; PRO287 polypeptides and portions may have
CC   therapeutic applications in wound healing and tissue repair; PRO317 can
CC   be used for treating problems of the kidney, uterus, endometrium, blood
CC   vessels, or related tissue, e.g. in the heart of genital tract.
XX
SQ   Sequence   312 AA;

  Query Match             77.2%;  Score 230;  DB 20;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 1.8e-210;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 14
AAB33421
```

```
ID   AAB33421 standard; Protein; 312 AA.
XX
AC   AAB33421;
XX
DT   29-JAN-2001  (first entry)
XX
DE   Human PRO245 protein UNQ219 SEQ ID NO:36.
XX
KW   Human; immune related disease; diagnosis; antiinflammatory; cardiant;
KW   dermatological; antiarthritic; antirheumatic; immunosuppressive;
KW   haemostatic; antithyroid; antidiabetic; nootropic; neuroprotective;
KW   antianaemic; hepatotropic; virucide; antipsoriatic; antiallergic;
KW   antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis;
KW   osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis;
KW   idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis;
KW   systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus;
KW   autoimmune thrombocytopaenia; immune-mediated renal disease;
KW   demyelinating disease; hepatobiliary disease; Whipple's disease;
KW   inflammatory bowel disease; gluten-sensitive enteropathy;
KW   autoimmune disease; immune-mediated skin disease; allergic disease;
KW   immunological disease; transplantation associated disease;
KW   graft rejection; graft-versus-host-disease.
XX
OS   Homo sapiens.
XX
PN   WO200053758-A2.
XX
PD   14-SEP-2000.
XX
PF   02-MAR-2000; 2000WO-US05841.
XX
PR   08-MAR-1999;   99WO-US05028.
PR   10-MAR-1999;   99US-0123618.
PR   12-MAR-1999;   99US-0123957.
PR   23-MAR-1999;   99US-0125775.
PR   12-APR-1999;   99US-0128849.
PR   20-APR-1999;   99WO-US08615.
PR   28-APR-1999;   99US-0131445.
PR   04-MAY-1999;   99US-0132371.
PR   14-MAY-1999;   99US-0134287.
PR   02-JUN-1999;   99WO-US12252.
PR   23-JUN-1999;   99US-0141037.
PR   20-JUL-1999;   99US-0144758.
PR   26-JUL-1999;   99US-0145698.
PR   28-JUL-1999;   99US-0146222.
PR   01-SEP-1999;   99WO-US20111.
PR   08-SEP-1999;   99WO-US20594.
PR   13-SEP-1999;   99WO-US20944.
PR   15-SEP-1999;   99WO-US21090.
PR   15-SEP-1999;   99WO-US21547.
PR   05-OCT-1999;   99WO-US23089.
PR   29-OCT-1999;   99US-0162506.
PR   29-NOV-1999;   99WO-US28214.
PR   30-NOV-1999;   99WO-US28313.
PR   30-NOV-1999;   99WO-US28409.
PR   01-DEC-1999;   99WO-US28301.
PR   01-DEC-1999;   99WO-US28634.
PR   02-DEC-1999;   99WO-US28551.
PR   02-DEC-1999;   99WO-US28564.
PR   02-DEC-1999;   99WO-US28565.
PR   16-DEC-1999;   99WO-US30095.
PR   20-DEC-1999;   99WO-US30999.
PR   30-DEC-1999;   99WO-US31274.
PR   05-JAN-2000; 2000WO-US00219.
PR   06-JAN-2000; 2000WO-US00277.
PR   06-JAN-2000; 2000WO-US00376.
PR   11-FEB-2000; 2000WO-US03565.
PR   18-FEB-2000; 2000WO-US04341.
PR   18-FEB-2000; 2000WO-US04342.
PR   22-FEB-2000; 2000WO-US04414.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Ashkenazi AJ,  Baker KP,  Goddard A,  Gurney AL,  Hebert C,  Henzel W;
PI   Kabakoff RC,  Lu Y,  Pan J,  Pennica D,  Shelton DL,  Smith V;
PI   Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Yan M;
XX
DR   WPI; 2000-572271/53.
DR   N-PSDB; AAC58586.
XX
PT   Sixty four PRO polypeptides, useful in the diagnosis and treatment of
PT   immune related disorders, e.g. systemic lupus erythematosis, rheumatoid
PT   arthritis, osteoarthritis, thyroiditis and diabetes mellitus -
XX
PS   Claim 33; Fig 16; 309pp; English.
XX
CC   The present invention describes sixty four human PRO proteins which can
CC   be used in the treatment of immune related diseases. The human PRO
CC   proteins, anti-PRO antibodies, agonists and antagonists are useful for
CC   treating and diagnosing immune related disorders. The disorders are
CC   selected from systemic lupus erythematosus, rheumatoid arthritis,
CC   osteoarthritis, juvenile chronic arthritis, spondyloarthropathies,
CC   systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's
CC   syndrome, systemic vasculitis, sarcoidosis, autoimmune haemolytic
CC   anaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus,
CC   immune-mediated renal disease, demyelinating diseases of the central
CC   and peripheral nervous systems, hepatobiliary diseases, inflammatory
CC   bowel disease, gluten-sensitive enteropathy and Whipple's disease,
CC   autoimmune or immune-mediated skin diseases, allergic diseases,
CC   immunological diseases of the lung, and transplantation associated
CC   diseases including graft rejection and graft-versus-host-disease.
CC   AAC58397 to AAC58578 represent PCR primers and hybridisation probes used
CC   in the isolation of human PRO sequences. AAC58579 to AAC58642 and
CC   AAB33414 to AAB33477 represent human PRO polynucleotide and protein
CC   sequences given in the exemplification of the present invention.
XX
SQ   Sequence   312 AA;

  Query Match             77.2%;  Score 230;  DB 21;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 1.8e-210;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 15
AAB24401
ID   AAB24401 standard; Protein; 312 AA.
XX
AC   AAB24401;
XX
DT   07-NOV-2000  (first entry)
XX
DE   Human PRO245 protein sequence SEQ ID NO:67.
XX
KW   Human; PRO; promotion; inhibition; angiogenesis; cardiovascularisation;
KW   diagnosis; trauma; wound; cancer; atherosclerosis; cardiac hypertrophy;
KW   angiogenic; proliferative; cardiant; cardiovascular; antiatherosclerotic;
KW   cytostatic; gene therapy; vaccine.
XX
OS   Homo sapiens.
XX
```

PN WO200032221-A2.
XX
PD 08-JUN-2000.
XX
PF 30-NOV-1999; 99WO-US28313.
XX
PR 01-DEC-1998; 98WO-US25108.
PR 16-DEC-1998; 98US-0112850.
PR 12-JAN-1999; 99US-0115554.
PR 08-MAR-1999; 99WO-US05028.
PR 12-MAR-1999; 99US-0123957.
PR 28-APR-1999; 99US-0131445.
PR 14-MAY-1999; 99US-0134287.
PR 02-JUN-1999; 99WO-US12252.
PR 23-JUN-1999; 99US-0141037.
PR 20-JUL-1999; 99US-0144758.
PR 26-JUL-1999; 99US-0145698.
PR 01-SEP-1999; 99WO-US20111.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 29-OCT-1999; 99US-0162506.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Ferrara N, Gerber H, Hillan KJ, Goddard A;
PI Godowski PJ, Gurney AL, Klein RD, Kuo SS, Paoni NF, Smith V;
PI Watanabe CK, Williams PM, Wood WI;
XX
DR WPI; 2000-412154/35.
DR N-PSDB; AAA77562.
XX
PT Nucleic acids encoding PRO polypeptides useful for preventing,
PT diagnosing and treating diagnosing a cardiovascular, endothelial or
PT angiogenic disorders in mammals -
XX
PS Claim 72; Fig 28; 315pp; English.
XX
CC The present invention describes nucleic acids encoding PRO polypeptides
CC useful for preventing, diagnosing and treating diagnosing a
CC cardiovascular, endothelial or angiogenic disorder in mammals by
CC modulating cell proliferation, angiogenesis and cardiovascularisation,
CC and for identifying agonists and antagonists of these processes. The
CC nucleic acids and the proteins they encode may be used in the
CC prevention, treatment and diagnosis of diseases associated with
CC inappropriate PRO expression such as cardiovascular, endothelial or
CC angiogenic disorders in mammals (e.g. atherosclerosis, cancers and
CC cardiac hypertrophy). For example, the nucleic acids (NCs) and vectors
CC containing them and the PRO polypeptide may be used to treat disorders
CC associated with decreased PRO expression. AAA77510 to AAA77721 and
CC AAB24388 to AAB24435 represent nucleotide and protein sequences used in
CC the exemplification of the present invention.
XX
SQ Sequence 312 AA;

Query Match 77.2%; Score 230; DB 21; Length 312;
Best Local Similarity 100.0%; Pred. No. 1.8e-210;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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GenCore version 5.1.6

OM protein - protein search, using sw model

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Searched: 328717 seqs, 42310858 residues

Word size : 50

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Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	296	99.3	298	4	US-09-152-060-76	Sequence 76, Appl
2	230	77.2	312	4	US-09-254-465A-9	Sequence 9, Appli

ALIGNMENTS

RESULT 1
US-09-152-060-76
; Sequence 76, Application US/09152060
; Patent No. 6448230
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 28 Human Secreted Proteins
; FILE REFERENCE: PZ003P1.US
; CURRENT APPLICATION NUMBER: US/09/152,060
; CURRENT FILING DATE: 1998-09-11
; EARLIER APPLICATION NUMBER: PCT/US98/04858
; EARLIER FILING DATE: 1998-03-12
; EARLIER APPLICATION NUMBER: 60/040,762
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/040,710
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/050,934
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,100
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,357
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,189
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/057,765
; EARLIER FILING DATE: 1997-09-05
; EARLIER APPLICATION NUMBER: 60/048,970
; EARLIER FILING DATE: 1997-06-06
; EARLIER APPLICATION NUMBER: 60/068,368
; EARLIER FILING DATE: 1997-12-19
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
; LENGTH: 298
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (42)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (58)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-152-060-76

Query Match 99.3%; Score 296; DB 4; Length 298;
Best Local Similarity 100.0%; Pred. No. 8.9e-276;
Matches 298; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Db          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60

Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
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Db         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120

Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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Qy        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240
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Db        181 LGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGI 240

Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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Db        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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RESULT 2
US-09-254-465A-9
; Sequence 9, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Fong, Sherman
; APPLICANT: Goddard, Audrey
; APPLICANT: Gurney, Austin L.
; APPLICANT: Napier, Mary A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Wood, William I.
; TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
; TITLE OF INVENTION: OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
; FILE REFERENCE: P1216R1(US)
; CURRENT APPLICATION NUMBER: US/09/254,465A
; CURRENT FILING DATE: 1999-03-05
; PRIOR APPLICATION NUMBER: PCT/US98/24855
; PRIOR FILING DATE: 1998-11-20
; PRIOR APPLICATION NUMBER: US 60/066,364
; PRIOR FILING DATE: 1997-11-21

; PRIOR APPLICATION NUMBER: US 60/078,936
; PRIOR FILING DATE: 1998-03-20
; PRIOR APPLICATION NUMBER: PCT/US98/19437
; PRIOR FILING DATE: 1998-09-17
; NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 9
; LENGTH: 312
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-254-465A-9

Query Match 77.2%; Score 230; DB 4; Length 312;
Best Local Similarity 100.0%; Pred. No. 1.7e-212;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:25:18 ; Search time 27.5157 Seconds
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Title: US-09-852-797-76
Perfect score: 298
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Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 684280 seqs, 185983659 residues

Word size : 50

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Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
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2	296	99.3	298	9	US-09-852-659A-76	Sequence 76, Appl
3	296	99.3	298	10	US-09-852-797-76	Sequence 76, Appl
4	240	80.5	298	9	US-09-745-763-38	Sequence 38, Appl
5	240	80.5	298	9	US-09-799-777-30	Sequence 30, Appl
6	240	80.5	298	15	US-10-139-849-2	Sequence 2, Appli
7	240	80.5	298	16	US-10-192-791-2	Sequence 2, Appli
8	230	77.2	312	10	US-09-909-320-64	Sequence 64, Appl
9	230	77.2	312	10	US-09-909-088B-64	Sequence 64, Appl
10	230	77.2	312	10	US-09-905-291A-64	Sequence 64, Appl
11	230	77.2	312	10	US-09-953-499-9	Sequence 9, Appli
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14	230	77.2	312	10	US-09-907-841-64	Sequence 64, Appl
15	230	77.2	312	11	US-09-904-011-64	Sequence 64, Appl
16	230	77.2	312	11	US-09-906-742-64	Sequence 64, Appl
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43	230	77.2	312	11	US-09-907-575-64	Sequence 64, Appl
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ALIGNMENTS

RESULT 1
US-09-853-161-76
; Sequence 76, Application US/09853161
; Patent No. US20020076756A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 28 Human Secreted Proteins
; FILE REFERENCE: PZ003P3
; CURRENT APPLICATION NUMBER: US/09/853,161
; CURRENT FILING DATE: 2001-05-11
; PRIOR APPLICATION NUMBER: 60/265,583
; PRIOR FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: 09/152,060
; PRIOR FILING DATE: 1998-09-11
; PRIOR APPLICATION NUMBER: PCT/US98/04858
; PRIOR FILING DATE: 1998-03-12
; PRIOR APPLICATION NUMBER: 60/040,762
; PRIOR FILING DATE: 1997-03-14
; PRIOR APPLICATION NUMBER: 60/040,710
; PRIOR FILING DATE: 1997-03-14
; PRIOR APPLICATION NUMBER: 60/050,934
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,100
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,357
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,189
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/057,765
; PRIOR FILING DATE: 1997-09-05
; PRIOR APPLICATION NUMBER: 60/048,970
; PRIOR FILING DATE: 1997-06-06
; PRIOR APPLICATION NUMBER: 60/068,368
; PRIOR FILING DATE: 1997-12-19
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
; LENGTH: 298

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;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-853-161-76

  Query Match             99.3%;  Score 296;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-269;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Qy        241 IAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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RESULT 2
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; Sequence 76, Application US/09852659A
; Patent No. US20020077287A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P4
;  CURRENT APPLICATION NUMBER: US/09/852,659A
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 121
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-659A-76

  Query Match             99.3%;  Score 296;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-269;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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; Sequence 76, Application US/09852797
; Patent No. US20020172994A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P2
;  CURRENT APPLICATION NUMBER: US/09/852,797
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 118
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;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-797-76

  Query Match             99.3%;  Score 296;  DB 10;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2.5e-269;
  Matches  298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MARRSRHRLLLLLLRYLVVALGYHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSR 60
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Qy         61 LEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQN 120
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Qy        121 LEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPR 180
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RESULT 4
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; Sequence 38, Application US/09745763
; Patent No. US20020065394A1
;   GENERAL INFORMATION:
;        APPLICANT: Jacobs, Kenneth
;                   McCoy, John M.
;                   LaVallie, Edward R.
;                   Collins-Racie, Lisa A.
;                   Evans, Cheryl
;                   Merberg, David
;                   Treacy, Maurice
;                   Spaulding, Vikki
;        TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES
;                            ENCODING THEM
;        NUMBER OF SEQUENCES: 219
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Genetics Institute, Inc.
;             STREET: 87 CambridgePark Drive
;             CITY: Cambridge
;             STATE: MA
;             COUNTRY: U.S.A.
;             ZIP: 02140
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/745,763
;             FILING DATE: 18-Jun-2000
;             CLASSIFICATION: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Sprunger, Suzanne A.
;             REGISTRATION NUMBER: 41,323
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (617) 498-8284
;             TELEFAX: (617) 876-5851
;   INFORMATION FOR SEQ ID NO: 38:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: <Unknown>
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 38:
US-09-745-763-38

  Query Match             80.5%;  Score 240;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 8.5e-217;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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RESULT 5
US-09-799-777-30
; Sequence 30, Application US/09799777
; Patent No. US20020091244A1
;   GENERAL INFORMATION:
;        APPLICANT: Lal, Preeti
;                   Hillman, Jennifer L.
;                   Corley, Neil C.
;                   Guegler, Karl J.
;                   Baugh, Mariah
;                   Sather, Susan
;                   Shah, Purvi
;        TITLE OF INVENTION: HUMAN SIGNAL PEPTIDE-CONTAINING PROTEINS
;        NUMBER OF SEQUENCES: 154
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
;             STREET: 3174 PORTER DRIVE
;             CITY: PALO ALTO
;             STATE: CALIFORNIA
;             COUNTRY: USA
;             ZIP: 94304
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/799,777
;             FILING DATE: 06-Mar-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/002,485
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: BILLINGS, LUCY J.
;             REGISTRATION NUMBER: 36,749
;             REFERENCE/DOCKET NUMBER: PF-0459 US
;        TELECOMMUNICATION INFORMATION:
```

```
;             TELEPHONE: (650) 855-0555
;             TELEFAX: (650) 845-4166
;   INFORMATION FOR SEQ ID NO: 30:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        IMMEDIATE SOURCE:
;             LIBRARY: DUODNOT02
;             CLONE: 1704050
;        SEQUENCE DESCRIPTION: SEQ ID NO: 30 :
US-09-799-777-30

  Query Match             80.5%;  Score 240;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 8.5e-217;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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RESULT 6
US-10-139-849-2
; Sequence 2, Application US/10139849
; Publication No. US20030079238A1
;   GENERAL INFORMATION:
;        APPLICANT: Cunningham, Sonia
;                   Barros, Maria Pia
;        TITLE OF INVENTION: A POLYNUCLEOTIDE ENCODING A HUMAN
;                            JUNCTIONAL ADHESION PROTEIN (JAM 2)
;        NUMBER OF SEQUENCES: 10
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Rockey, Milnamow & Katz, Ltd.
;             STREET: 180 N. Stetson Avenue, 2 Prudential Plaza,
;                     Suite 4700
;             CITY: Chicago
;             STATE: IL
;             COUNTRY: U.S.A.
;             ZIP: 60601
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/139,849
;             FILING DATE: 07-May-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/643,929
;             FILING DATE: 23-Aug-2000
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Katz, Martin L.
;             REGISTRATION NUMBER: 25,011
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 312-616-5400
;             TELEFAX: 312-616-5460
;   INFORMATION FOR SEQ ID NO: 2:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-10-139-849-2

  Query Match             80.5%;  Score 240;  DB 15;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 8.5e-217;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 7
US-10-192-791-2
; Sequence 2, Application US/10192791
; Publication No. US20030130166A1
; GENERAL INFORMATION:
;  APPLICANT: Texas Biotechnology Corporation
;  TITLE OF INVENTION: A Polynucleotide Encoding a Human Junctional Adhesion Protein (JA
;  FILE REFERENCE: TEX4542P0430
;  CURRENT APPLICATION NUMBER: US/10/192,791
;  CURRENT FILING DATE:  2003-12-10
;  NUMBER OF SEQ ID NOS: 10
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-192-791-2

  Query Match             80.5%;  Score 240;  DB 16;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 8.5e-217;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 8
US-09-909-320-64
; Sequence 64, Application US/09909320
; Patent No. US20020132240A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
```

; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,320
; CURRENT FILING DATE: 2002-01-04
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
; LENGTH: 312
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-909-320-64

Query Match 77.2%; Score 230; DB 10; Length 312;
Best Local Similarity 100.0%; Pred. No. 2.1e-207;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 9
US-09-909-088B-64
; Sequence 64, Application US/09909088B
; Patent No. US20020146709A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,088B
; CURRENT FILING DATE: 2001-07-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29

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;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-909-088B-64

  Query Match             77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
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Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 10
US-09-905-291A-64
; Sequence 64, Application US/09905291A
; Patent No. US20020160374A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/905,291A
;  CURRENT FILING DATE:  2001-07-12
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-291A-64

  Query Match             77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 11
US-09-953-499-9
; Sequence 9, Application US/09953499
; Publication No. US20020182206A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
```

```
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE: P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/953,499
;  CURRENT FILING DATE:  2001-09-14
;  PRIOR APPLICATION NUMBER: US/09/254,465
;  PRIOR FILING DATE: 1999-03-05
;  PRIOR APPLICATION NUMBER: PCT/US98/24855
;  PRIOR FILING DATE: 1998-11-20
;  PRIOR APPLICATION NUMBER: US 60/066,364
;  PRIOR FILING DATE: 1997-11-21
;  PRIOR APPLICATION NUMBER: US 60/078,936
;  PRIOR FILING DATE: 1998-03-20
;  PRIOR APPLICATION NUMBER: PCT/US98/19437
;  PRIOR FILING DATE: 1998-09-17
;  NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 9
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-953-499-9

  Query Match             77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 12
US-09-902-853-64
; Sequence 64, Application US/09902853
; Publication No. US20020192659A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/902,853
;  CURRENT FILING DATE:  2001-07-10
;  PRIOR APPLICATION NUMBER: US/09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-902-853-64

  Query Match             77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 13
US-09-907-824-64
; Sequence 64, Application US/09907824
; Publication No. US20020197671A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,824
;  CURRENT FILING DATE:  2001-07-17
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-907-824-64

  Query Match             77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 14
US-09-907-841-64
; Sequence 64, Application US/09907841
; Publication No. US20020198366A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,841
;  CURRENT FILING DATE:  2001-11-20
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
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;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-907-841-64

  Query Match             77.2%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 15
US-09-904-011-64
; Sequence 64, Application US/09904011
; Publication No. US20030003530A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/904,011
;  CURRENT FILING DATE:  2001-07-11
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-904-011-64

  Query Match             77.2%;  Score 230;  DB 11;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-207;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


Search completed: December  9, 2003, 17:34:15
Job time : 28.5157 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:21:03 ; Search time 14.5366 Seconds
(without alignments)
1971.458 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 298
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 283308 seqs, 96168682 residues

Word size : 50

Total number of hits satisfying chosen parameters: 0

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description

No matches found

Search completed: December 9, 2003, 17:25:56
Job time : 14.5366 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:14:27 ; Search time 10.3833 Seconds
(without alignments)
1349.666 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 298
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSPII 298

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 127863 seqs, 47026705 residues

Word size : 50

Total number of hits satisfying chosen parameters: 1

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	240	80.5	298	1	JAM2_HUMAN	P57087 homo sapien

ALIGNMENTS

RESULT 1
JAM2_HUMAN
ID JAM2_HUMAN STANDARD; PRT; 298 AA.
AC P57087;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 15-SEP-2003 (Rel. 42, Last annotation update)
DE Junctional adhesion molecule 2 precursor (Vascular endothelial
DE junction-associated molecule) (VE-JAM).
GN JAM2 OR VEJAM OR C21ORF43.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Vascular endothelial cells;
RX MEDLINE=20317114; PubMed=10779521;
RA Palmeri D., van Zante A., Huang C.C., Hemmerich S., Rosen S.D.;
RT "Vascular endothelial junction-associated molecule, a novel member of
RT the immunoglobulin superfamily, is localized to intercellular
RT boundaries of endothelial cells.";
RL J. Biol. Chem. 275:19139-19145(2000).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Placenta;
RX MEDLINE=20507930; PubMed=10945976;
RA Cunningham S.A., Arrate M.P., Rodriguez J.M., Bjercke R.J.,
RA Vanderslice P., Morris A.P., Brock T.A.;
RT "A novel protein with homology to the junctional adhesion molecule:
RT Characterization of leukocyte interactions.";
RL J. Biol. Chem. 275:34750-34756(2000).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=Lung;
RX MEDLINE=22388257; PubMed=12477932;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length
RT human and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC -!- FUNCTION: MAY PLAY A ROLE IN THE PROCESSES OF LYMPHOCYTE HOMING TO
CC SECONDARY LYMPHOID ORGANS.
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC -!- TISSUE SPECIFICITY: PROMINENTLY EXPRESSED ON HIGH ENDOTHELIAL
CC VENULES BUT IS ALSO PRESENT ON THE ENDOTHELIA OF OTHER VESSELS.
CC LOCALIZED TO THE INTERCELLULAR BOUNDARIES OF HIGH ENDOTHELIAL
CC CELLS.
CC -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC -!- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
CC -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC -!- DATABASE: NAME=PROW; NOTE=PROW 2:1-3(2001);
CC WWW="http://www.ncbi.nlm.nih.gov/prow/guide/1652492186_g.htm".
CC ---

CC ---
DR EMBL; AF255910; AAF81223.1; -.
DR EMBL; AY016009; AAG49022.1; -.
DR EMBL; BC017779; AAH17779.1; -.
DR Genew; HGNC:14686; JAM2.
DR MIM; 606870; -.
DR GO; GO:0005887; C:integral to plasma membrane; NAS.
DR GO; GO:0016337; P:cell-cell adhesion; NAS.
DR InterPro; IPR007110; Ig-like.
DR InterPro; IPR003598; Ig_c2.
DR InterPro; IPR003006; Ig_MHC.
DR Pfam; PF00047; ig; 2.
DR SMART; SM00408; IGc2; 1.
DR PROSITE; PS50835; IG_LIKE; 2.
KW Immunoglobulin domain; Glycoprotein; Transmembrane; Signal.

FT SIGNAL	1	20	POTENTIAL.
FT CHAIN	21	298	JUNCTIONAL ADHESION MOLECULE 2.
FT DOMAIN	21	238	EXTRACELLULAR (POTENTIAL).
FT TRANSMEM	239	259	POTENTIAL.
FT DOMAIN	260	298	CYTOPLASMIC (POTENTIAL).
FT DOMAIN	32	127	IG-LIKE V-TYPE.
FT DOMAIN	134	238	IG-LIKE C2-TYPE.
FT DISULFID	50	109	POTENTIAL.
FT DISULFID	155	214	POTENTIAL.

```
FT   CARBOHYD      98     98       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     187    187       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     236    236       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   298 AA;  33207 MW;  CA78E518E22DCAEE CRC64;

  Query Match             80.5%;  Score 240;  DB 1;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 9.1e-214;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


Search completed: December  9, 2003, 17:24:01
Job time : 11.3833 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:20:17 ; Search time 32.1882 Seconds
(without alignments)
2389.068 Million cell updates/sec

Title: US-09-852-797-76
Perfect score: 298
Sequence: 1 MARRSRHRLLLLLLRYLVVA.....SSKATTMSENDFKHTKSFII 298

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 830525 seqs, 258052604 residues

Word size : 50

Total number of hits satisfying chosen parameters: 0

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description

No matches found

Search completed: December 9, 2003, 17:25:15
Job time : 32.1882 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:07:01 ; Search time 36.5436 Seconds
(without alignments)
1198.803 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 1418
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_19Jun03:*
1: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
3: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:*
4: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
5: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1984.DAT:*
6: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1985.DAT:*
7: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1986.DAT:*
8: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1987.DAT:*
9: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1988.DAT:*
10: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
11: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1990.DAT:*
12: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
13: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1992.DAT:*
14: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1993.DAT:*
15: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1994.DAT:*
16: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1995.DAT:*
17: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1996.DAT:*
18: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1997.DAT:*
19: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1998.DAT:*
20: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
21: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2000.DAT:*
22: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2001.DAT:*
23: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
24: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2003.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1415	99.8	298	19	AAW85457	Secreted protein e
2	1415	99.8	298	22	AAU00512	Human junctional a
3	1415	99.8	298	23	ABP61801	Human polypeptide
4	1415	99.8	298	24	AAO16452	Human junctional a
5	1414	99.7	298	19	AAW75220	Human secreted pro
6	1414	99.7	298	23	AAE26983	Human gene 25 enco
7	1414	99.7	298	23	AAE27121	Human gene 25 enco
8	1414	99.7	298	24	ABR47926	Human secreted pro
9	1414	99.7	298	24	ABU64994	Human secreted pro
10	1414	99.7	298	24	ABR00172	Human gene 162 enc
11	1399.5	98.7	303	22	AAM23693	Human EST encoded
12	1362	96.1	312	20	AAY08060	Human PRO245 prote
13	1362	96.1	312	20	AAY23324	A33 related antige
14	1362	96.1	312	20	AAY13354	Amino acid sequenc
15	1362	96.1	312	21	AAB33421	Human PRO245 prote
16	1362	96.1	312	21	AAB24401	Human PRO245 prote
17	1362	96.1	312	21	AAY70668	Human PRO245 prote
18	1362	96.1	312	22	AAU12339	Human PRO245 polyp
19	1362	96.1	312	22	AAU00821	Human immune respo
20	1362	96.1	312	22	AAB80222	Human PRO245 prote
21	1362	96.1	312	22	AAB53081	Human angiogenesis
22	1362	96.1	312	24	ABU69632	Novel human secret
23	1362	96.1	312	24	ABU71455	Human PRO polypept
24	1362	96.1	312	24	ABU71901	Human secreted/tra
25	1362	96.1	312	24	ABU07738	Human A-33 related
26	1362	96.1	312	24	ABU66737	Human PRO polypept
27	1362	96.1	312	24	ABU67013	Human secreted/tra
28	1362	96.1	312	24	ABU67355	Human secreted pro
29	1362	96.1	312	24	ABU59818	Novel secreted and
30	1362	96.1	312	24	ABU64509	Human secreted/tra
31	1362	96.1	312	24	ABU54357	Human secreted/tra
32	1356	95.6	312	22	AAB50904	Human PRO245 prote
33	1143	80.6	222	22	AAM41947	Human polypeptide
34	1139.5	80.4	388	22	ABG22341	Novel human diagno
35	1128	79.5	298	21	AAB27273	Human confluency r
36	1128	79.5	298	21	AAB27275	Murine confluency
37	1106	78.0	215	22	AAB70500	Angiogenesis prote
38	1092	77.0	213	21	AAB27277	Human confluency r
39	702.5	49.5	140	22	ABG22338	Novel human diagno
40	547	38.6	107	22	AAM40161	Human polypeptide
41	486.5	34.3	310	21	AAB27272	Human confluency r
42	486.5	34.3	310	21	AAB27278	Murine confluency
43	477.5	33.7	310	21	AAB27276	Human confluency r
44	477.5	33.7	310	21	AAB33457	Human PRO1868 prot
45	477.5	33.7	310	21	AAY96735	PRO1868, an A33 an

ALIGNMENTS

RESULT 1
AAW85457
ID AAW85457 standard; Protein; 298 AA.
XX
AC AAW85457;
XX
DT 25-FEB-1999 (first entry)
XX
DE Secreted protein encoded by clone ct864_4.
XX
KW Secreted protein; nutritional activity; immune stimulating; vaccine;
KW suppressing activity; haematopoiesis regulating activity;
KW tissue growth activity; activin; inhibin activity; chemotactaxis;
KW chemokinetic activity; haemostasis; thrombolytic activity; receptor;
KW ligand; anti-inflammatory; cadherin; tumour invasion suppressor;
KW tumour inhibition; gene therapy.
XX
OS Homo sapiens.
XX
PN WO9842739-A2.
XX
PD 01-OCT-1998.
XX
PF 20-MAR-1998; 98WO-US05653.
XX
PR 19-MAR-1998; 98US-0044466.
PR 21-MAR-1997; 97US-0822167.
XX
PA (GEMY) GENETICS INST INC.
XX
PI Agostino MJ, Jacobs K, Lavallie ER, McCoy JM, Merberg D;
PI Racie LA, Spaulding V, Treacy M;

```
XX
DR   WPI; 1998-609890/51.
DR   N-PSDB; AAV82780.
XX
PT   New polynucleotides encoding secreted human proteins - derived from
PT   human foetal brain, adult brain, foetal kidney, placenta or adult
PT   pineal gland cDNA libraries.
XX
PS   Claim 17; Page 73-74; 113pp; English.
XX
CC   The present sequence represents a secreted protein. The polynucleotide
CC   and secreted protein are predicted to have biological activities which
CC   would make them suitable for treating, preventing or ameliorating medical
CC   conditions in humans and animals, although no supporting data is given.
CC   Suggested activities include nutritional activity, immune stimulating
CC   (e.g. as vaccines) or suppressing activity, haematopoiesis regulating
CC   activity, tissue growth activity, activin/inhibin activity,
CC   chemotactic/chemokinetic activity, haemostatic and thrombolytic activity,
CC   receptor/ligand activity, anti-inflammatory activity, cadherin/tumour
CC   invasion suppressor activity, and tumour inhibition activity (no data is
CC   given in the specification to support these activities). The
CC   polynucleotide is also stated to be useful for gene therapy.
XX
SQ   Sequence   298 AA;

  Query Match             99.8%;  Score 1415;  DB 19;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 1.6e-111;
  Matches  274;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||| ||||||||||||||| |||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 2
AAU00512
ID   AAU00512 standard; Protein; 298 AA.
XX
AC   AAU00512;
XX
DT   09-MAY-2001  (first entry)
XX
DE   Human junctional adhesion protein (JAM2).
XX
KW   Junctional adhesion protein; JAM2; cellular localisation;
KW   cellular expression; immunoprecipitation; stroke; phosphorylation;
KW   glycosylation; paracellular migration; inflammatory disease;
KW   arthritis; asthma; rheumatoid arthritis; inflammatory bowel disease;
KW   Crohn's disease.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..20
FT                   /note= "Possible signal peptide #1"
FT   Peptide         1..28
FT                   /note= "Possible signal peptide #2"
FT   Protein         21..298
FT                   /note= "Possible mature JAM2 #1"
FT   Protein         29..298
FT                   /note= "Possible mature JAM2 #2"
FT   Domain          237..254
FT                   /note= "Transmembrane domain"
XX
PN   WO200114404-A1.
XX
PD   01-MAR-2001.
XX
PF   23-AUG-2000; 2000WO-US23158.
XX
PR   24-AUG-1999;   99US-0150459.
XX
PA   (TEXA-) TEXAS BIOTECHNOLOGY CORP.
XX
PI   Cunningham S,  Trindad Arrate Barros M;
XX
DR   WPI; 2001-218425/22.
DR   N-PSDB; AAS00512.
XX
PT   Novel nucleic acids encoding human junctional adhesion protein useful
PT   for producing antibodies that are suitable for therapeutic purposes  -
XX
PS   Claim 4; Page 46-47; 51pp; English.
XX
CC   The sequence represents a human junctional adhesion molecule 2 (JAM2).
CC   The polynucleotide encoding the polypeptide is useful for recombinant
CC   production of JAM-2 protein, which in turn is useful for the production
CC   of antibodies. The antibodies may be used for probing cellular
CC   localisation and/or expression of JAM2 in tissues under normal and
CC   disease states, for immunoprecipitating JAM2 protein from cells and/or
CC   stroke tissues to determine whether it is modified by glycosylation and
CC   phosphorylation, and for determining JAM2 function. The antibodies
CC   inhibit interaction of JAM2 with inflammatory cells or influences their
CC   paracellular migration, and is therefore useful for alleviating
CC   inflammatory diseases such as arthritis, asthma, rheumatoid arthritis,
CC   inflammatory bowel disease and Crohn's disease.
XX
SQ   Sequence   298 AA;

  Query Match             99.8%;  Score 1415;  DB 22;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 1.6e-111;
  Matches  274;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||| ||||||||||||||| |||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 3
ABP61801
ID   ABP61801 standard; Protein; 298 AA.
XX
AC   ABP61801;
XX
```

DT 04-OCT-2002 (first entry)
XX
DE Human polypeptide SEQ ID NO 155.
XX
KW Human; cytostatic; antirheumatic; antiarthritic; vulnerary; analgesic;
KW antiinflammatory; antibacterial; immunosuppressive; antiparkinsonian;
KW neuroprotective; nootropic; osteopathic; haemostatic; vasotropic;
KW antiulcer; fungicide; antidiabetic; antiasthmatic; antiallergic;
KW immunostimulant; antiparasitic; secreted protein; transmembrane protein;
KW cytokine; cell proliferation; cell differentiation; autoimmune disease;
KW stem cell; growth factor; nervous system disease; neuropathy;
KW Alzheimer's disease; Parkinson's disease; Huntington's disease;
KW osteoporosis; severe combined immunodeficiency; SCID; infection;
KW multiple sclerosis; rheumatoid arthritis; gene therapy.
XX
OS Homo sapiens.
XX
PN US2002065394-A1.
XX
PD 30-MAY-2002.
XX
PF 22-DEC-2000; 2000US-0745763.
XX
PR 18-MAR-1998; 98US-0040963.
XX
PA (JACO/) JACOBS K.
PA (MCCO/) MCCOY J M.
PA (LAVA/) LAVALLIE E R.
PA (COLL/) COLLINS-RACIE L A.
PA (EVAN/) EVANS C.
PA (MERB/) MERBERG D.
PA (TREA/) TREACY M.
PA (SPAU/) SPAULDING V.
XX
PI Jacobs K, McCoy JM, LaVallie ER, Collins-Racie LA, Evans C;
PI Merberg D, Treacy M, Spaulding V;
XX
DR WPI; 2002-582343/62.
DR N-PSDB; ABQ92017.
XX
PT Novel secreted or transmembrane protein and polynucleotide encoding the
PT protein, useful for diagnosis and treatment of neurological disorders,
PT cancer, autoimmune diseases, bone disorders and lung or liver fibrosis
PT -
XX
PS Claim 54; Page 116-117; 284pp; English.
XX
CC The invention relates to human secreted or transmembrane protein (I),
CC their fragments and is encoded by specific complementary deoxyribonucleic
CC acid (cDNA) inserts (II), where the protein is substantially free from
CC other mammalian proteins. (I) are useful for preventing, treating or
CC ameliorating a medical condition, especially immunological treatment or
CC prevention of tumours. (I) exhibits activity relating to angiogenesis,
CC cytokine, cell proliferation, cell differentiation, antiinflammatory,
CC stem cell growth factor activity and activin or inhibin-related
CC activities. (I) can be used to manipulate stem cells in culture to give
CC rise to neuroepithelial cells that can be used to augment or replace
CC cells damaged by illness, autoimmune disease, accidental damage or
CC genetic disorders. (I) induces the proliferation of neural cells and
CC regeneration of nerve and brain tissue and is useful for the treatment of
CC central and peripheral nervous system diseases and neuropathies, such as
CC Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC lateral sclerosis. (I) is involved in chemotactic or chemokinetic
CC activity, regulation of haematopoiesis and is useful for treating myeloid
CC or lymphoid cell disorders, platelet disorders such as thrombocytopaenia
CC and for regeneration of bone, cartilage, tendon, ligament and/or nerve
CC tissue growth and in tissue repair, healing of burns, incisions, ulcers,
CC for treating osteoporosis, osteoarthritis, bone degenerative disorders or
CC periodontal disease. (I) is also useful for gut protection or
CC regeneration and treatment of lung or liver fibrosis, reperfusion injury
CC in various tissues, various immune deficiencies and disorders including
CC severe combined immunodeficiency (SCID), bacterial or fungal infections,
CC autoimmune disorders e.g. multiple sclerosis, rheumatoid arthritis,
CC diabetes mellitus, myasthenia gravis, allergic reactions and conditions,
CC such as asthma or other respiratory problems. (II) is useful to express
CC recombinant protein, as markers for tissues in which the corresponding
CC protein is preferentially expressed and in gene therapy. The present
CC sequence is that of a polypeptide of the invention.
XX
SQ Sequence 298 AA;

Query Match 99.8%; Score 1415; DB 23; Length 298;
Best Local Similarity 99.3%; Pred. No. 1.6e-111;
Matches 274; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||| |||||||||||||| |||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 4
AAO16452
ID AAO16452 standard; protein; 298 AA.
XX
AC AAO16452;
XX
DT 17-APR-2003 (first entry)
XX
DE Human junctional adhesion molecule 2 (huJAM2).
XX
KW Human; gene therapy; extracellular region; junctional adhesion molecules;
KW huJAM; immune system disorder; immune deficiency; autoimmune disorder;
KW inflammatory disorder; cancer; wound healing; cardiovascular disease;
KW full-length membrane-bound huJAM protein.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1..28
FT /label= Signal_peptide
FT Domain 29..236
FT /note= "Extracellular domain; Specifically claimed
FT region"
FT Protein 29..298
FT /note= "Mature huJAM2"
XX
PN WO2003008541-A2.
XX
PD 30-JAN-2003.
XX
PF 05-JUL-2002; 2002WO-US19800.
XX
PR 16-JUL-2001; 2001US-305752P.
PR 05-FEB-2002; 2002US-354345P.
XX
PA (ELIL) LILLY & CO ELI.
XX
PI Heuer JG, Smith RC, Su EW;
XX
DR WPI; 2003-221848/21.

```
DR   N-PSDB; AAL51599.
XX
PT   New extracellular human junctional adhesion molecule (huJAM)
PT   polypeptide, useful for treating an immune system disorder such as an
PT   immune deficiency or an inflammatory disorder, cancer, wound healing,
PT   or a cardiovascular disease -
XX
PS   Disclosure; Fig 1; 131pp; English.
XX
CC   The invention comprises the DNA and protein sequences of the
CC   extracellular region of human junctional adhesion molecules (huJAM). The
CC   extracellular huJAM DNA and protein sequences are useful in the treatment
CC   of: immune system disorders (e.g. immune deficiency); autoimmune
CC   disorders; inflammatory disorders; cancer; wound healing; or a
CC   cardiovascular disease. The present amino acid sequence represents the
CC   full-length membrane-bound huJAM2 protein.
XX
SQ   Sequence   298 AA;

  Query Match             99.8%;  Score 1415;  DB 24;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 1.6e-111;
  Matches  274;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||| ||||||||||||| ||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 5
AAW75220
ID   AAW75220 standard; Protein; 298 AA.
XX
AC   AAW75220;
XX
DT   29-JAN-1999  (first entry)
XX
DE   Human secreted protein encoded by gene 25 clone HTEEB42.
XX
KW   Human; secreted protein; fusion protein; gene therapy; protein therapy;
KW   diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia;
KW   developmental abnormality; foetal deficiency; blood; allergy; renal;
KW   immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;
KW   inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS;
KW   cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;
KW   osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;
KW   endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 42
FT                   /label= unknown
FT   Misc-difference 58
FT                   /label= unknown
XX
PN   WO9840483-A2.
XX
PD   17-SEP-1998.
XX
PF   12-MAR-1998;   98WO-US04858.
XX
PR   19-DEC-1997;   97US-0068368.
PR   14-MAR-1997;   97US-0040710.
PR   14-MAR-1997;   97US-0040762.
PR   30-MAY-1997;   97US-0048100.
PR   30-MAY-1997;   97US-0048189.
PR   30-MAY-1997;   97US-0048357.
PR   30-MAY-1997;   97US-0050934.
PR   06-JUN-1997;   97US-0048970.
PR   05-SEP-1997;   97US-0057765.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Ferrie AM,  Fischer CL,  Gentz RL,  Greene JM,  Kyaw H;
PI   Li H,  Li Y,  Moore PA, Rosen CA,  Ruben SM,  Soppet DR;
PI   Wei YF,  Young PE,  Zeng Z;
XX
DR   WPI; 1998-520811/44.
DR   N-PSDB; AAV34310.
XX
PT   Isolated human poly:nucleotide(s) encoding secretory peptide(s) -
PT   used to develop products for the diagnosis and treatment of e.g.
PT   inflammation, cancers, CNS disorders or immune system disorders
XX
PS   Claim 1; Page 168-169; 201pp; English.
XX
CC   This sequence represents a secreted human protein encoded by the gene
CC   clone detailed in the descriptor line.  The gene can be used to generate
CC   fusion proteins by linking to the gene to a human immunoglobulin Fc
CC   portion (e.g. AAV34277) for increasing the stability of the fused
CC   protein as compared to the human protein only.
CC   The invention relates to 28 novel genes and their fragments (nucleic
CC   acid sequences: AAV34286-V34325; amino acid sequences AAW75196-W75235)
CC   which are useful for preventing, treating or ameliorating  medical
CC   conditions e.g. by protein or gene therapy.  Also, pathological
CC   conditions can be diagnosed by determining the amount of the new
CC   polypeptides in a sample or by determining the presence of mutations in
CC   the new polynucleotides. Specific uses are described for each of the 28
CC   polynucleotides, based on which tissues they are most highly expressed in
CC   (see AAV34286 for described uses).
XX
SQ   Sequence   298 AA;

  Query Match             99.7%;  Score 1414;  DB 19;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2e-111;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 6
AAE26983
```

```
ID   AAE26983 standard; Protein; 298 AA.
XX
AC   AAE26983;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; immunodeficiency; X-linked agammaglobulinaemia; septic shock;
KW   autoimmune disorder; rheumatoid arthritis; multiple sclerosis; cancer;
KW   Grave's disease; diabetes mellitus; haematopoietic disorder; stroke;
KW   respiratory disorder; asthma; allergy; gastrointestinal disorder;
KW   inflammatory bowel disease; neurodegenerative disorder; hepatitis;
KW   Parkinson's disease; Alzheimer's disease; cardiovascular disorder;
KW   atherosclerosis; myocarditis; renal disorder; fungicide; virucide;
KW   hyperproliferative disorder; acute glomerulonephritis; tonsilitis;
KW   respiratory disorder; rhinitis; sinusitis; neurological disease;
KW   endocrine disorder; Addison's disease; reproductive system disorder;
KW   endometriosis; vasotropic; vulnerary; cytostatic; nootropic; cardiant;
KW   anti-HIV; tranquilliser; gout; antiparasitic.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Human mature secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002077287-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0852659.
XX
PR   11-SEP-1998;   98US-0152060.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-598780/64.
DR   N-PSDB; AAD44660.
XX
PT   Novel human secreted polypeptides and polynucleotides for diagnosing,
PT   preventing, treating immune, hyperproliferative, cardiovascular,
PT   neurological, reproductive disorders and identifying modulators of
PT   therapeutic use  -
XX
PS   Claim 11; Page 186; 209pp; English.
XX
CC   AAD44636-AAD44676 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE26959-AAE26999 represent the proteins they encode.
CC   AAE27000-AAE27025 represent human secreted protein fragments or their
CC   variants. The secreted proteins and genes are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Specific uses are described for each of the 28 genes, based
CC   on the tissues in which they are most highly expressed and include
CC   developing products for the diagnosis or treatment of immunodeficiencies,
CC   e.g., X-linked agammaglobulinaemia, B cell immunodeficiencies, severe
CC   combined immunodeficiencies, autoimmune disorders e.g., systemic lupus
CC   erythematosus, rheumatoid arthritis, multiple sclerosis, autoimmune
CC   thyroiditis, autoimmune haemolytic anaemia, Goodpasture's syndrome,
CC   Grave's disease, diabetes mellitus, dermatitis, inflammatory conditions
CC   including septic shock, sepsis, reperfusion injury, inflammatory bowel
CC   disease, Crohn's disease, haematopoietic disorders, respiratory
CC   disorders e.g., asthma and allergy, gastrointestinal disorders e.g.,
CC   inflammatory bowel disease), cancers e.g., gastric, ovarian, lung,
CC   liver, bladder and breast), central nervous system (CNS) disorders e.g.,
CC   ischaemic brain injury and/or stroke, neurodegenerative disorders e.g.,
CC   Parkinson's disease and Alzheimer's disease, AIDS-related dementia and
CC   prion disease, cardiovascular disorders e.g., myocarditis, arrhythmias,
CC   atherosclerosis, inflammatory disorders e.g., hepatitis, gout, trauma,
CC   pancreatitis, sarcoidosis and allogenic transplant rejection, blood-
CC   related disorder (thrombosis, arterial thrombosis, atherosclerosis),
CC   hyperproliferative disorders, respiratory disorders e.g. rhinitis,
CC   sinusitis, tonsilitis, lung cancer, allergic disorders, pneumonitis,
CC   renal disorders. e.g. acute glomerulonephritis, neurological diseases,
CC   liver disorders, endocrine disorders e.g., hyperthyroidism, Addison's
CC   disease, hyperpituitarism, infectious diseases and reproductive system
CC   disorders e.g. endometriosis. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.7%;  Score 1414;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2e-111;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 7
AAE27121
ID   AAE27121 standard; Protein; 298 AA.
XX
AC   AAE27121;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; secreted protein; autoimmune disease; hyperproliferative disorder;
KW   rheumatoid arthritis; neoplasm; cerebrovascular disorder; angiogenesis;
KW   cerebral ischaemia; cardiovascular disorder; nervous system disorder;
KW   cardiac arrest; Alzheimer's disease; ocular disorder; wound healing;
KW   infection; corneal infection; skin aging; food additive; preservative;
KW   tissue regeneration; immunosuppressive; antiproliferative; cytostatic;
KW   cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective;
KW   antibacterial; virucide; fungicide; ophthalmological; gene therapy;
KW   vulnerary.
```

```
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Mature human secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002076756-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0853161.
XX
PR   02-FEB-2001; 2001US-265583P.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
PA   (MOOR/) MOORE P A.
PA   (YOUN/) YOUNG P E.
PA   (GREE/) GREENE J M.
PA   (FERR/) FERRIE A M.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-574454/61.
DR   N-PSDB; AAD44878.
XX
PT   New nucleic acid molecules encoding 28 human secreted proteins, useful
PT   for diagnosing, preventing, treating or ameliorating medical conditions
PT   and as food additives or preservatives -
XX
PS   Claim 11; Page 186-187; 209pp; English.
XX
CC   AAD44854-AAD44984 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE27097-AAE27137 represent the proteins they encode.
CC   AAE27138-AAE27164 represent human secreted protein fragments. The genes
CC   and their corresponding secreted proteins are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Secreted protein sequences of the invention are useful for the
CC   diagnosis or treatment of disorders such as autoimmune diseases (e.g.
CC   rheumatoid arthritis), hyperproliferative disorders (e.g. neoplasms of
CC   the breast or liver), cerebrovascular disorders (e.g. cerebral ischaemia,
CC   angiogenesis), cardiovascular disorders (e.g. cardiac arrest), nervous
CC   system disorders (e.g. Alzheimer's disease), infections caused by fungi,
CC   bacteria and viruses and ocular disorders (e.g. corneal infection). The
CC   polypeptides can also be used to aid wound healing and epithelial cell
CC   proliferation, to prevent skin aging due to sunburn, to maintain organs
CC   before transplantation, for supporting cell culture of primary tissues,
CC   to regenerate tissues and in chemotaxis. They can also be used as food
CC   additives or preservative to increase or decrease storage capabilities,
CC   fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors
CC   and other nutritional components. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;
```

```
  Query Match           99.7%;  Score 1414;  DB 23;  Length 298;
  Best Local Similarity  100.0%;  Pred. No. 2e-111;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

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RESULT 8
ABR47926
ID   ABR47926 standard; Protein; 298 AA.
XX
AC   ABR47926;
XX
DT   12-JUN-2003  (first entry)
XX
DE   Human secreted protein, SEQ ID 817.
XX
KW   Cardiant; antiarrhythmic; antiarteriosclerotic; vasotropic; cytostatic;
KW   vulnerary; antiinflammatory; nootropic; neuroprotective;
KW   antiparkinsonian; gene therapy; human; cardiovascular disorder.
XX
OS   Homo sapiens.
XX
PN   WO200295010-A2.
XX
PD   28-NOV-2002.
XX
PF   19-MAR-2002; 2002WO-US09785.
XX
PR   21-MAR-2001; 2001US-277340P.
PR   19-JUL-2001; 2001US-306171P.
PR   13-NOV-2001; 2001US-331287P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen CA,  Ruben SM;
XX
DR   WPI; 2003-129429/12.
XX
PT   Novel human secreted proteins, useful for detecting, preventing,
PT   diagnosing, prognosticating, treating and/or ameliorating
PT   cardiovascular disorders such as arrhythmia -
XX
PS   Claim 13; SEQ ID 817; 1881pp; English.
XX
CC   The present invention relates to novel human secreted proteins
CC   (ABR47633-ABR48145) and their coding sequences (ACC50344-ACC50856). The
CC   proteins and their coding sequences are useful for the preparation of a
CC   diagnostic or pharmaceutical composition for diagnosing or treating a
CC   cardiovascular disorder (e.g., arrhythmia, tachycardia, cardiac arrest,
CC   coronary arteriosclerosis and myocardial ischaemia), neural disorders,
CC   immune system disorders, muscular disorders, reproductive disorders,
CC   gastrointestinal disorders, pulmonary disorders, renal disorders,
CC   proliferative disorders and/or cancerous diseases and conditions, for
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CC   wound healing and epithelial cell proliferation, to treat inflammation or
CC   infection, for treating thrombosis and arteriosclerosis, for treating or
CC   preventing neural damage which occurs in neuronal disorders or
CC   neurodegenerative conditions such as Alzheimer's disease and Parkinson's
CC   disease, to enhance bone and periodontal regeneration and aid in tissue
CC   transplants or bone grafts, to prevent skin aging or hair loss, to
CC   stimulate growth and differentiation of haematopoietic cells and bone
CC   marrow cells when used in combination with other cytokines, to maintain
CC   organs before transplantation or for supporting cell culture of primary
CC   tissues, to increase or decrease differentiation or proliferation of
CC   embryonic stem cells, or to modulate mammalian characteristics or
CC   metabolism.
CC   Note: The sequence data for this patent was published in electronic
CC   format and is available from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   298 AA;

  Query Match             99.7%;  Score 1414;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2e-111;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 9
ABU64994
ID   ABU64994 standard; Protein; 298 AA.
XX
AC   ABU64994;
XX
DT   15-MAY-2003  (first entry)
XX
DE   Human secreted protein gene 25, protein.
XX
KW   Secreted protein; immunodeficiency; multiple sclerosis;
KW   severe combined immunodeficiency; autoimmune disorder; cancer;
KW   rheumatoid arthritis; diabetes mellitus; haematopoietic disorder;
KW   inflammatory condition; septic shock; inflammatory bowel disease;
KW   Crohn's disease; respiratory disorder; asthma; allergy; stroke;
KW   gastrointestinal disorder; central nervous system disorder;
KW   ischaemic brain injury; neurodegenerative disorder; Parkinson's disease;
KW   Alzheimer's disease; cardiovascular disorder; atherosclerosis;
KW   blood-related disorder; thrombosis; atherosclerosis; renal disorder;
KW   hyperproliferative disorder; acute glomerulonephritis; Addison's disease;
KW   endocrine disorder; liver disease; reproductive system disorder;
KW   endometriosis; infectious disease; pancreatic disorder; vaccine;
KW   wound repair; angiogenesis; lymphatic disorder; hair loss; body weight;
KW   body height; hair colour; human.
XX
OS   Homo sapiens.
XX
PN   US2002172994-A1.
XX
PD   21-NOV-2002.
XX
PF   11-MAY-2001; 2001US-0852797.
XX
PR   14-MAR-1997;   97US-040710P.
PR   14-MAR-1997;   97US-040762P.
PR   30-MAY-1997;   97US-048100P.
PR   30-MAY-1997;   97US-048189P.
PR   30-MAY-1997;   97US-048357P.
PR   30-MAY-1997;   97US-050934P.
PR   06-JUN-1997;   97US-048970P.
PR   05-SEP-1997;   97US-057765P.
PR   19-DEC-1997;   97US-068368P.
PR   02-FEB-2001; 2001US-265583P.
PR   12-MAR-1998;   98WO-US04858.
PR   11-SEP-1998;   98US-0152060.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
PA   (MOOR/) MOORE P A.
PA   (YOUN/) YOUNG P E.
PA   (GREE/) GREENE J M.
PA   (FERR/) FERRIE A M.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2003-310989/30.
DR   N-PSDB; ABX96990.
XX
PT   New human secreted polypeptides and polynucleotides for diagnosing,
PT   prognosing, preventing and treating immune, hyperproliferative, liver,
PT   kidney, reproductive disorders and for identifying modulators of
PT   therapeutic use -
XX
PS   Claim 11; Page 186; 209pp; English.
XX
CC   The invention relates to an isolated polypeptide comprising an amino acid
CC   sequence at least 95% identical to sequence of 28 human secreted
CC   proteins, their fragment, polypeptide domain, epitope, secreted form,
CC   variant, allelic variant, or species homologue, or the encoded sequence
CC   included in ATCC 97921 and 97922. Also included are the encoding
CC   nucleic acids, recombinant vectors, host cells, antibodies, and genes.
CC   The proteins and nucleic acids are useful for diagnosing, preventing,
CC   treating, prognosing or ameliorating a medical condition e.g.
CC   immunodeficiencies (e.g. X-linked agammaglobulinaemia, B cell
CC   immunodeficiencies, severe combined immunodeficiencies), autoimmune
CC   disorders (e.g. systemic erythematosus, rheumatoid arthritis, multiple
CC   sclerosis, autoimmune thyroiditis, autoimmune haemolytic anaemia,
CC   Goodpasture's syndrome, Grave's disease, diabetes mellitus, dermatitis),
CC   haematopoietic disorders, inflammatory conditions (e.g. septic shock,
CC   sepsis, reperfusion injury, inflammatory bowel disease, Crohn's disease),
CC   respiratory disorders (e.g. asthma and allergy), gastrointestinal
CC   disorders, cancers (e.g. gastric, ovarian, lung, bladder, liver and
CC   breast), central nervous system (CNS) disorders (e.g. ischaemic brain
CC   injury and/or stroke, traumatic brain injury), neurodegenerative
CC   disorders (e.g. Parkinson's disease and Alzheimer's disease, AIDS-related
CC   dementia, and prion disease), cardiovascular disorders (e.g.
CC   atherosclerosis, myocarditis, cardiovascular disease, and cardiopulmonary
CC   bypass complications), inflammation (e.g. hepatitis, gout, trauma,
CC   pancreatitis, sarcoidosis, dermatitis, allogenic transplant rejection),
CC   blood-related disorders (thrombosis, arterial thrombosis),
CC   hyperproliferative disorders, renal disorders (e.g. acute
CC   glomerulonephritis), endocrine disorders (e.g. Addison's disease,
CC   hyperthyroidism, hyperpituitarism), liver diseases and disorders,
```

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CC   reproductive system disorders (e.g. endometriosis), infectious diseases,
CC   and pancreatic disorders. Many other diseases and disorders are listed in
CC   the specification. They also useful as a vaccine adjuvant. Further they
CC   are useful to enhance or inhibit complement mediated cell lysis, for
CC   stimulating wound and tissue repair, angiogenesis, and the repair of
CC   vascular or lymphatic diseases or disorders. They are also useful
CC   to prevent hair loss, to modulate mammalian characteristics such as body
CC   height, weight, hair colour, and to increase or decrease storage
CC   capabilities, fat content, lipid, protein, carbohydrate, vitamins,
CC   minerals, cofactors or other nutritional components. The proteins are
CC   also useful for identifying binding partners. The present sequence
CC   represents a secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.7%;  Score 1414;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2e-111;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 10
ABR00172
ID   ABR00172 standard; Protein; 298 AA.
XX
AC   ABR00172;
XX
DT   03-APR-2003  (first entry)
XX
DE   Human gene 162 encoded secreted protein HTEEB42, SEQ ID NO:461.
XX
KW   Human; secreted protein; digestive disorder; gastrointestinal disorder;
KW   mouth; oesophagus; stomach; small intestine; large intestine; liver;
KW   biliary tract; pancreas; cancer; tumour; hyperproliferative disorder;
KW   immune disorder; inflammation; infection; wound healing; drug screening;
KW   chromosome identification; chromosome mapping; cytostatic; gene therapy;
KW   antiinflammatory; immunosuppressive; vulnerary; chromosome 21q21.2.
XX
OS   Homo sapiens.
XX
PN   WO200276488-A1.
XX
PD   03-OCT-2002.
XX
PF   19-MAR-2002; 2002WO-US08276.
XX
PR   21-MAR-2001; 2001US-277340P.
PR   19-JUL-2001; 2001US-306171P.
PR   13-NOV-2001; 2001US-331287P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen CA,  Ruben SM;
XX
DR   WPI; 2003-029900/02.
DR   N-PSDB; ABZ71351.
XX
PT   New human secreted proteins and nucleic acids, useful for detecting,
PT   preventing, diagnosing, prognosticating, treating and/or ameliorating
PT   e.g. gastrointestinal diseases and disorders, or cancers -
XX
PS   Claim 13; Page 1046-1047; 1216pp; English.
XX
CC   ABZ71190-ABZ71478 represent cDNAs corresponding to 178 human secreted
CC   protein genes, and ABP00011-ABP00299 represent the proteins they encode.
CC   ABZ71479-ABZ71540 represent human secreted protein genomic fragments. The
CC   invention also encompasses antibodies specific for the secreted proteins,
CC   the use of the secreted proteins in drug screening, and recombinant
CC   vectors and host cells comprising a nucleic acid of the invention. The
CC   secreted proteins, nucleic acids encoding them, antibodies or antibody
CC   fragments specific for the secreted proteins, and modulators of protein
CC   activity are useful for diagnosing, treating, ameliorating or preventing
CC   digestive disorders. Such conditions include disorders of the mouth,
CC   oesophagus, stomach, small intestine, large intestine, liver, biliary
CC   tract and pancreas, and include cancers of these organs and tissues. The
CC   secreted proteins and their nucleic acids may also be used in the
CC   treatment of immune disorders, inflammation, infection,
CC   hyperproliferative disorders, and to promote wound healing. Nucleic acids
CC   of the invention may be used for chromosome identification, chromosome
CC   mapping, in gene therapy, for identifying individuals from minute
CC   biological samples, as hybridisation probes, and as molecular weight
CC   markers. The present sequence represents a human secreted protein of the
CC   invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.7%;  Score 1414;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 2e-111;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 11
AAM23693
ID   AAM23693 standard; Protein; 303 AA.
XX
AC   AAM23693;
XX
DT   12-OCT-2001  (first entry)
XX
DE   Human EST encoded protein SEQ ID NO: 1218.
XX
KW   Human; sheep; pig; cow; fruit fly; yeast; hamster; macaque; horse;
KW   tomato; monkey; dog; sea urchin; expressed sequence tag; EST;
KW   diagnostics; forensic test; gene mapping; genetic disorder;
KW   biodiversity; gene therapy; nutrition.
XX
OS   Homo sapiens.
```

XX
PN WO200154477-A2.
XX
PD 02-AUG-2001.
XX
PF 25-JAN-2001; 2001WO-US02687.
XX
PR 25-JAN-2000; 2000US-0491404.
PR 17-JUL-2000; 2000US-0617746.
PR 03-AUG-2000; 2000US-0631451.
PR 15-SEP-2000; 2000US-0663870.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Zhou P, Qian XB, Wang Z, Chen R, Asundi V;
PI Cao Y, Drmanac RA, Zhang J, Werhman T;
XX
DR WPI; 2001-476164/51.
DR N-PSDB; AAH98352.
XX
PT Isolated polypeptide for treatment of diseases, diagnostics, raising
PT antibodies and research use -
XX
PS Claim 20; Page 878-879; 1275pp; English.
XX
CC The present invention provides the protein and coding sequences of novel
CC proteins from a variety of organisms, including human, dog, cat, horse,
CC cow, pig, hamster, monkey, macaque, yeast, bacteria, fruit fly, sea
CC urchin and tomato. These were derived from expressed sequence tags (ESTs)
CC from the organism of interest. They can be used in diagnostics,
CC forensics, gene mapping, identification of mutations, to assess
CC biodiversity and for nutritional purposes. The present sequence is a
CC protein of the invention.
XX
SQ Sequence 303 AA;

Query Match 98.7%; Score 1399.5; DB 22; Length 303;
Best Local Similarity 97.2%; Pred. No. 3.4e-110;
Matches 273; Conservative 1; Mismatches 2; Indels 5; Gaps 1;

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Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              |||||||||||||||||| |||||||||||||| ||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVL-----VAPAVP 115
              |||||||||||||||||||||||||||||||||||||||||||||||||     :|||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLGDVHVLAPAVP 142

Qy        116 SCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTG 175
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTG 202

Qy        176 TLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLG 235
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLG 262

Qy        236 VCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||||||
Db        263 VCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 303
```

RESULT 12
AAY08060
ID AAY08060 standard; Protein; 312 AA.
XX
AC AAY08060;
XX
DT 11-SEP-2000 (first entry)
XX
DE Human PRO245 protein.
XX
KW Inflammatory cell infiltration; immune response; T cell proliferation;
KW anti-inflammatory; anti-autoimmune; anti-diabetic; spondyloarthropathy;
KW T cell-mediated disease; spondyloarthropathy; sclerosis; renal disease;
KW inflammatory myopathy; hemolytic anemia; thrombocytopenia; thyroiditis;
KW diabetes mellitus; demyelinating polyneuropathy; Guillain-Barre syndrome;
KW multiple sclerosis; polyneuropathy; hepatitis; cirrhosis; enteropathy;
KW sclerosing cholangitis; inflammatory bowel disease; Whipple's disease;
KW skin disease; dermatitis; psoriasis; asthma; allergic rhinitis; tumor;
KW food hypersensitivity; urticaria; eosinophilic pneumonia; transplant;
KW idiopathic pulmonary fibrosis; graft rejection; PRO245; human.
XX
OS Homo sapiens.
XX
PN WO9914241-A2.
XX
PD 25-MAR-1999.
XX
PF 17-SEP-1998; 98WO-US19437.
XX
PR 17-SEP-1997; 97US-0059119.
PR 18-SEP-1997; 97US-0059263.
PR 28-OCT-1997; 97US-0063550.
PR 12-NOV-1997; 97US-0065186.
PR 21-NOV-1997; 97US-0066364.
PR 24-NOV-1997; 97US-0066770.
PR 04-JUN-1998; 98US-0088026.
XX
PA (GETH) GENENTECH INC.
XX
PI Fong S, Goddard A, Gurney AL, Tumas D, Wood WI;
XX
DR WPI; 1999-229499/19.
DR N-PSDB; AAX37664.
XX
PT Composition containing novel polypeptide PRO245, its agonist or
PT antagonist -
XX
PS Example 1; Fig 2; 177pp; English.
XX
CC This invention describes a novel composition containing (apart from a
CC carrier or excipient), a novel PRO245 polypeptide (I), its agonist or
CC antagonist, or their fragments, for modulating: (i) infiltration of
CC inflammatory cells into tissue; (ii) an immune response; or (iii) T cell
CC proliferation. The composition increases or decreases any of the effects
CC (i)-(iii). The products of the invention have anti-inflammatory,
CC anti-autoimmune and anti-diabetic activity. (I), and its (ant)agonists
CC and their fragments, are used to treat immune-related diseases,
CC particularly T cell-mediated diseases. The diseases treated include
CC systemic lupus erythematosus, rheumatoid arthritis, juvenile chronic
CC arthritis, spondyloarthropathies, systemic sclerosis (scleroderma),
CC idiopathic inflammatory myopathies (dermatomyositis, polymyositis),
CC Sjogren's syndrome, systemic vasculitis, sarcoidosis, autoimmune
CC hemolytic anemia (immune pancytopenia, paroxysmal nocturnal
CC hemoglobinuria), autoimmune thrombocytopenia (idiopathic thrombocytopenic
CC purpura immune-mediated thrombocytopenia), thyroiditis (Grave's disease,
CC Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC thyroiditis), diabetes mellitus, immune-mediated renal disease
CC (glomerulonephritis, tubulointerstitial nephritis), multiple sclerosis,
CC idiopathic demyelinating polyneuropathy, Guillain-Barre syndrome, chronic
CC inflammatory demyelinating polyneuropathy, infectious hepatitis
CC (hepatitis A, B, C, D, E and other non-hepatotropic viruses), autoimmune
CC chronic active hepatitis, primary biliary cirrhosis, granulomatous
CC hepatitis, and sclerosing cholangitis, inflammatory bowel disease
CC (ulcerative colitis: Crohn's disease), gluten-sensitive enteropathy, and
CC Whipple's disease. Autoimmune or immune-mediated skin diseases including
CC bullous skin diseases, erythema multiforme,contact dermatitis, psoriasis,
CC asthma, allergic rhinitis, atopic dermatitis, food hypersensitivity,
CC urticaria, eosinophilic pneumonia, idiopathic pulmonary fibrosis,
CC hypersensitivity pneumonitis, and transplantation associated diseases
CC (graft rejection, and graft-versus-host-disease). (I), its (ant)agonists
CC or fragment can also be used as an adjuvant in treatment of tumors.
CC Antibodies against (I) can also be used for diagnosing such diseases.
CC This sequence represents the human PRO245 protein described in the
CC invention.
XX

```
SQ   Sequence   312 AA;

  Query Match             96.1%;  Score 1362;  DB 20;  Length 312;
  Best Local Similarity   99.2%;  Pred. No. 5.3e-107;
  Matches  264;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              |||||||||||||||||| |||||||||||||| ||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
              |||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 13
AAY23324
ID   AAY23324 standard; Protein; 312 AA.
XX
AC   AAY23324;
XX
DT   02-SEP-1999  (first entry)
XX
DE   A33 related antigen PRO245.
XX
KW   A33 related antigen; PRO301; PRO362; PRO245; inflammatory disease;
KW   tumour.
XX
OS   Homo sapiens.
XX
PN   WO9927098-A2.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-US24855.
XX
PR   17-SEP-1998;   98WO-US19437.
PR   21-NOV-1997;   97US-0066364.
PR   20-MAR-1998;   98US-0078936.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Ashkenazi A,  Fong S,  Goddard A,  Gurney AL,  Napier MA;
PI   Tumas D,  Wood WI;
XX
DR   WPI; 1999-404743/34.
DR   N-PSDB; AAX81770.
XX
PT   Antigens PRO301, PRO362 and PRO245 related to A33
XX
PS   Example 3; Fig 11; 122pp; English.
XX
CC   The specification describes A33 related antigens PRO301, PRO362 and
CC   PRO245. The methods and compositions of the invention are useful for the
CC   treatment and diagnosis of inflammatory disease and tumours in mammals.
CC   Such inflammatory diseases include of inflammatory bowel disease,
CC   systemic lupus erythematosis, rheumatoid arthritis, juvenile chronic
CC   arthritis, spondyloarthropathies, systemic sclerosis, scleroderma,
CC   idiopathic inflammatory myopathies, dermatomyositis, polymyositis,
CC   Sjogren's syndrome, systemic vaculitis, sarcoidosis, autoimmune hemolytic
CC   anemia, immune pancytopenia, paroxysmal nocturnal hemoglobinuria,
CC   autoimmune thrombocytopenia, idiopathic thrombocytopenic purpura,
CC   immune-mediated thrombocytopenia, thyroiditis, Grave's disease,
CC   Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC   thyroiditis, diabetes mellitus, immune-mediated renal disease,
CC   glomerulonephritis, tubulointerstitial nephritis, demyelinating diseases
CC   of the central and peripheral nervous systems such as multiple sclerosis,
CC   idiopathic polyneuropathy, hepatobiliary diseases, infectious hepatitis
CC   A, B, C, D, E, nonhepatotropic viruses, autoimmune chronic active
CC   hepatitis, primary biliary cirrhosis, granulomatous hepatitis, sclerosing
CC   cholangitis, inflammatory and fibrotic lung diseases, gluten-sensitive
CC   enteropathy, Whipple's disease, autoimmune or immune-mediated skin
CC   diseases allergic diseases of the lung such as eosinophilic pneumonias,
CC   idiopathic pulmonary fibrosis and hypersensitivity pneumonitis
CC   transplantation associated diseases disease. The present sequence
CC   represents PRO245.
XX
SQ   Sequence   312 AA;

  Query Match             96.1%;  Score 1362;  DB 20;  Length 312;
  Best Local Similarity   99.2%;  Pred. No. 5.3e-107;
  Matches  264;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
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Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
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Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
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Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 14
AAY13354
ID   AAY13354 standard; Protein; 312 AA.
XX
AC   AAY13354;
XX
DT   25-JUN-1999  (first entry)
XX
DE   Amino acid sequence of protein PRO245.
XX
KW   Secreted protein; transmembrane protein; human; enterocolitis;
KW   Zollinger-Ellison syndrome; gastrointestinal ulceration;
KW   congenital microvillus atrophy; skin disease; cell growth;
KW   abnormal keratinocyte differentiation; psoriasis; epithelial cancer;
KW   Parkinson's disease; Alzheimer's disease; ALS; neuropathy;
KW   fibromodulin; dermal scarring; Usher Syndrome; Atrophia areata;
KW   anti-thrombotic; wound healing; tissue repair.
XX
OS   Homo sapiens.
XX
PN   WO9914328-A2.
XX
PD   25-MAR-1999.
XX
PF   16-SEP-1998;   98WO-US19330.
XX
PR   25-NOV-1997;   97US-0066840.
PR   17-SEP-1997;   97US-0059113.
PR   17-SEP-1997;   97US-0059115.
PR   17-SEP-1997;   97US-0059117.
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PR 17-SEP-1997; 97US-0059119.
PR 17-SEP-1997; 97US-0059121.
PR 17-SEP-1997; 97US-0059122.
PR 17-SEP-1997; 97US-0059184.
PR 18-SEP-1997; 97US-0059263.
PR 18-SEP-1997; 97US-0059266.
PR 15-OCT-1997; 97US-0062125.
PR 17-OCT-1997; 97US-0062285.
PR 17-OCT-1997; 97US-0062287.
PR 21-OCT-1997; 97US-0063486.
PR 24-OCT-1997; 97US-0062814.
PR 24-OCT-1997; 97US-0062816.
PR 24-OCT-1997; 97US-0063045.
PR 24-OCT-1997; 97US-0063120.
PR 24-OCT-1997; 97US-0063121.
PR 24-OCT-1997; 97US-0063127.
PR 24-OCT-1997; 97US-0063128.
PR 27-OCT-1997; 97US-0063329.
PR 27-OCT-1997; 97US-0063327.
PR 28-OCT-1997; 97US-0063541.
PR 28-OCT-1997; 97US-0063542.
PR 28-OCT-1997; 97US-0063544.
PR 28-OCT-1997; 97US-0063549.
PR 28-OCT-1997; 97US-0063550.
PR 28-OCT-1997; 97US-0063564.
PR 29-OCT-1997; 97US-0063435.
PR 29-OCT-1997; 97US-0063704.
PR 29-OCT-1997; 97US-0063732.
PR 29-OCT-1997; 97US-0063738.
PR 29-OCT-1997; 97US-0063734.
PR 29-OCT-1997; 97US-0064215.
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PR 31-OCT-1997; 97US-0063870.
PR 31-OCT-1997; 97US-0064103.
PR 03-NOV-1997; 97US-0064248.
PR 07-NOV-1997; 97US-0064809.
PR 12-NOV-1997; 97US-0065186.
PR 17-NOV-1997; 97US-0065846.
PR 18-NOV-1997; 97US-0065693.
PR 21-NOV-1997; 97US-0066120.
PR 21-NOV-1997; 97US-0066364.
PR 24-NOV-1997; 97US-0066772.
PR 24-NOV-1997; 97US-0066466.
PR 24-NOV-1997; 97US-0066770.
PR 24-NOV-1997; 97US-0066511.
PR 24-NOV-1997; 97US-0066453.
XX
PA (GETH) GENENTECH INC.
XX
PI Chen J, Goddard A, Gurney AL, Pennica D, Wood WI, Yuan J;
XX
DR WPI; 1999-229533/19.
DR N-PSDB; AAX52225.
XX
PT New isolated human genes and polypeptides used in, e.g. treatment of
PT gastrointestinal ulceration
XX
PS Claim 12; Fig 24; 320pp; English.
XX
CC AAY13344-403 represent secreted and transmembrane human proteins.
CC The cDNA sequences are obtained from cDNA libraries, prepared from
CC fetal lung, fetal kidney, fetal brain, fetal liver and fetal retina.
CC The encoded polypeptides have specific uses based on their homology to
CC known polypeptides, e.g. PRO211 and PRO217 can be used for disorders
CC associated with the preservation and maintenance of gastrointestinal
CC mucosa and the repair of acute and chronic mucosal lesions
CC (e.g. enterocolitis, Zollinger-Ellison syndrome, gastrointestinal
CC ulceration and congenital microvillus atrophy), skin diseases associated
CC with abnormal keratinocyte differentiation (e.g. psoriasis, epithelial
CC cancers such as lung squamous cell carcinoma of the vulva and gliomas),
CC potent effects on cell growth and development, diseases related to
CC growth or survival of nerve cells including Parkinson's disease,
CC Alzheimer's disease, ALS, neuropathies or cancer. PRO265 can be used as
CC for fibromodulin, e.g. for reducing dermal scarring. PRO264 can be used
CC as a target for anti-tumor drugs. PRO533 may be used in the treatment
CC of Usher Syndrome or Atrophia areata; PRO269 can be used as an
CC anti-thrombotic agent; PRO287 polypeptides and portions may have
CC therapeutic applications in wound healing and tissue repair; PRO317 can
CC be used for treating problems of the kidney, uterus, endometrium, blood
CC vessels, or related tissue, e.g. in the heart of genital tract.
XX
SQ Sequence 312 AA;

Query Match 96.1%; Score 1362; DB 20; Length 312;
Best Local Similarity 99.2%; Pred. No. 5.3e-107;
Matches 264; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
              |||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 15
AAB33421
ID AAB33421 standard; Protein; 312 AA.
XX
AC AAB33421;
XX
DT 29-JAN-2001 (first entry)
XX
DE Human PRO245 protein UNQ219 SEQ ID NO:36.
XX
KW Human; immune related disease; diagnosis; antiinflammatory; cardiant;
KW dermatological; antiarthritic; antirheumatic; immunosuppressive;
KW haemostatic; antithyroid; antidiabetic; nootropic; neuroprotective;
KW antianaemic; hepatotropic; virucide; antipsoriatic; antiallergic;
KW antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis;
KW osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis;
KW idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis;
KW systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus;
KW autoimmune thrombocytopaenia; immune-mediated renal disease;
KW demyelinating disease; hepatobiliary disease; Whipple's disease;
KW inflammatory bowel disease; gluten-sensitive enteropathy;
KW autoimmune disease; immune-mediated skin disease; allergic disease;
KW immunological disease; transplantation associated disease;
KW graft rejection; graft-versus-host-disease.
XX
OS Homo sapiens.
XX
PN WO200053758-A2.
XX
PD 14-SEP-2000.
XX
PF 02-MAR-2000; 2000WO-US05841.
XX
PR 08-MAR-1999; 99WO-US05028.
PR 10-MAR-1999; 99US-0123618.
PR 12-MAR-1999; 99US-0123957.
PR 23-MAR-1999; 99US-0125775.
PR 12-APR-1999; 99US-0128849.

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PR   20-APR-1999;   99WO-US08615.
PR   28-APR-1999;   99US-0131445.
PR   04-MAY-1999;   99US-0132371.
PR   14-MAY-1999;   99US-0134287.
PR   02-JUN-1999;   99WO-US12252.
PR   23-JUN-1999;   99US-0141037.
PR   20-JUL-1999;   99US-0144758.
PR   26-JUL-1999;   99US-0145698.
PR   28-JUL-1999;   99US-0146222.
PR   01-SEP-1999;   99WO-US20111.
PR   08-SEP-1999;   99WO-US20594.
PR   13-SEP-1999;   99WO-US20944.
PR   15-SEP-1999;   99WO-US21090.
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PR   05-OCT-1999;   99WO-US23089.
PR   29-OCT-1999;   99US-0162506.
PR   29-NOV-1999;   99WO-US28214.
PR   30-NOV-1999;   99WO-US28313.
PR   30-NOV-1999;   99WO-US28409.
PR   01-DEC-1999;   99WO-US28301.
PR   01-DEC-1999;   99WO-US28634.
PR   02-DEC-1999;   99WO-US28551.
PR   02-DEC-1999;   99WO-US28564.
PR   02-DEC-1999;   99WO-US28565.
PR   16-DEC-1999;   99WO-US30095.
PR   20-DEC-1999;   99WO-US30999.
PR   30-DEC-1999;   99WO-US31274.
PR   05-JAN-2000; 2000WO-US00219.
PR   06-JAN-2000; 2000WO-US00277.
PR   06-JAN-2000; 2000WO-US00376.
PR   11-FEB-2000; 2000WO-US03565.
PR   18-FEB-2000; 2000WO-US04341.
PR   18-FEB-2000; 2000WO-US04342.
PR   22-FEB-2000; 2000WO-US04414.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Ashkenazi AJ,  Baker KP,  Goddard A,  Gurney AL,  Hebert C,  Henzel W;
PI   Kabakoff RC,  Lu Y,  Pan J,  Pennica D,  Shelton DL,  Smith V;
PI   Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Yan M;
XX
DR   WPI; 2000-572271/53.
DR   N-PSDB; AAC58586.
XX
PT   Sixty four PRO polypeptides, useful in the diagnosis and treatment of
PT   immune related disorders, e.g. systemic lupus erythematosis, rheumatoid
PT   arthritis, osteoarthritis, thyroiditis and diabetes mellitus -
XX
PS   Claim 33; Fig 16; 309pp; English.
XX
CC   The present invention describes sixty four human PRO proteins which can
CC   be used in the treatment of immune related diseases. The human PRO
CC   proteins, anti-PRO antibodies, agonists and antagonists are useful for
CC   treating and diagnosing immune related disorders. The disorders are
CC   selected from systemic lupus erythematosus, rheumatoid arthritis,
CC   osteoarthritis, juvenile chronic arthritis, spondyloarthropathies,
CC   systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's
CC   syndrome, systemic vasculitis, sarcoidosis, autoimmune haemolytic
CC   anaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus,
CC   immune-mediated renal disease, demyelinating diseases of the central
CC   and peripheral nervous systems, hepatobiliary diseases, inflammatory
CC   bowel disease, gluten-sensitive enteropathy and Whipple's disease,
CC   autoimmune or immune-mediated skin diseases, allergic diseases,
CC   immunological diseases of the lung, and transplantation associated
CC   diseases including graft rejection and graft-versus-host-disease.
CC   AAC58397 to AAC58578 represent PCR primers and hybridisation probes used
CC   in the isolation of human PRO sequences. AAC58579 to AAC58642 and
CC   AAB33414 to AAB33477 represent human PRO polynucleotide and protein
CC   sequences given in the exemplification of the present invention.
XX
SQ   Sequence   312 AA;

  Query Match             96.1%;  Score 1362;  DB 21;  Length 312;
  Best Local Similarity   99.2%;  Pred. No. 5.3e-107;
  Matches  264;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
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Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
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Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288

Search completed: December  9, 2003, 17:11:13
Job time : 37.5436 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:10:36 ; Search time 14.4251 Seconds
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Title: US-09-852-797-76_COPY_23_298
Perfect score: 1418
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Scoring table: BLOSUM62
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Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

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Maximum Match 100%
Listing first 45 summaries

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6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1414	99.7	298	4	US-09-152-060-76	Sequence 76, Appl
2	1362	96.1	312	4	US-09-254-465A-9	Sequence 9, Appli
3	426	30.0	299	3	US-09-188-930-189	Sequence 189, App
4	426	30.0	299	3	US-09-188-930-331	Sequence 331, App
5	426	30.0	299	4	US-09-462-270-2	Sequence 2, Appli
6	426	30.0	299	4	US-09-254-465A-1	Sequence 1, Appli
7	426	30.0	299	4	US-09-312-283C-189	Sequence 189, App
8	426	30.0	299	4	US-09-312-283C-331	Sequence 331, App
9	410	28.9	300	4	US-09-254-465A-10	Sequence 10, Appl
10	399	28.1	260	4	US-09-254-465A-23	Sequence 23, Appl
11	399	28.1	263	4	US-09-254-465A-25	Sequence 25, Appl
12	268.5	18.9	205	4	US-09-462-270-4	Sequence 4, Appli
13	231	16.3	270	4	US-09-254-465A-24	Sequence 24, Appl
14	231	16.3	273	4	US-09-254-465A-26	Sequence 26, Appl
15	231	16.3	319	1	US-08-597-495B-22	Sequence 22, Appl
16	231	16.3	319	3	US-09-068-051A-22	Sequence 22, Appl
17	231	16.3	319	4	US-09-336-536-67	Sequence 67, Appl
18	231	16.3	319	4	US-09-254-465A-6	Sequence 6, Appli
19	219	15.4	318	3	US-09-068-051A-32	Sequence 32, Appl
20	210	14.8	387	4	US-09-175-928-2	Sequence 2, Appli
21	200	14.1	341	4	US-09-336-536-29	Sequence 29, Appl
22	200	14.1	370	4	US-09-336-536-28	Sequence 28, Appl
23	198	14.0	390	2	US-08-979-424-1	Sequence 1, Appli
24	196	13.8	365	4	US-09-336-536-40	Sequence 40, Appl
25	196	13.8	394	4	US-09-336-536-39	Sequence 39, Appl
26	190.5	13.4	352	4	US-09-996-243-505	Sequence 505, App
27	190.5	13.4	365	2	US-08-979-424-3	Sequence 3, Appli
28	190.5	13.4	365	3	US-09-272-496-2	Sequence 2, Appli
29	186.5	13.2	365	3	US-08-928-383B-2	Sequence 2, Appli
30	183	12.9	365	3	US-08-928-383B-23	Sequence 23, Appl
31	183	12.9	365	3	US-08-928-383B-24	Sequence 24, Appl
32	180	12.7	365	3	US-08-928-383B-26	Sequence 26, Appl
33	178.5	12.6	246	4	US-09-336-536-31	Sequence 31, Appl
34	177.5	12.5	249	4	US-09-336-536-42	Sequence 42, Appl
35	175.5	12.4	466	4	US-09-604-107A-8	Sequence 8, Appli
36	160.5	11.3	805	3	US-08-985-526-34	Sequence 34, Appl
37	160.5	11.3	806	2	US-08-443-861-5	Sequence 5, Appli
38	160.5	11.3	806	3	US-08-193-829B-5	Sequence 5, Appli
39	160.5	11.3	1367	1	US-07-813-593-4	Sequence 4, Appli
40	160.5	11.3	1367	1	US-07-977-451-6	Sequence 6, Appli
41	160.5	11.3	1367	1	US-07-946-507-4	Sequence 4, Appli
42	160.5	11.3	1367	1	US-08-252-517-6	Sequence 6, Appli
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44	160.5	11.3	1367	1	US-08-601-891-6	Sequence 6, Appli
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ALIGNMENTS

RESULT 1
US-09-152-060-76
; Sequence 76, Application US/09152060
; Patent No. 6448230
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 28 Human Secreted Proteins
; FILE REFERENCE: PZ003P1.US
; CURRENT APPLICATION NUMBER: US/09/152,060
; CURRENT FILING DATE: 1998-09-11
; EARLIER APPLICATION NUMBER: PCT/US98/04858
; EARLIER FILING DATE: 1998-03-12
; EARLIER APPLICATION NUMBER: 60/040,762
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/040,710
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/050,934
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,100
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,357
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,189
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/057,765
; EARLIER FILING DATE: 1997-09-05
; EARLIER APPLICATION NUMBER: 60/048,970
; EARLIER FILING DATE: 1997-06-06
; EARLIER APPLICATION NUMBER: 60/068,368
; EARLIER FILING DATE: 1997-12-19
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
; LENGTH: 298
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (42)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (58)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-152-060-76

Query Match 99.7%; Score 1414; DB 4; Length 298;
Best Local Similarity 100.0%; Pred. No. 1.4e-130;
Matches 276; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
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Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
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Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

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RESULT 2
US-09-254-465A-9
; Sequence 9, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Fong, Sherman
; APPLICANT: Goddard, Audrey
; APPLICANT: Gurney, Austin L.
; APPLICANT: Napier, Mary A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Wood, William I.
; TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
; TITLE OF INVENTION: OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
; FILE REFERENCE: P1216R1(US)
; CURRENT APPLICATION NUMBER: US/09/254,465A
; CURRENT FILING DATE: 1999-03-05
; PRIOR APPLICATION NUMBER: PCT/US98/24855
; PRIOR FILING DATE: 1998-11-20
; PRIOR APPLICATION NUMBER: US 60/066,364
; PRIOR FILING DATE: 1997-11-21
; PRIOR APPLICATION NUMBER: US 60/078,936
; PRIOR FILING DATE: 1998-03-20
; PRIOR APPLICATION NUMBER: PCT/US98/19437
; PRIOR FILING DATE: 1998-09-17
; NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 9
; LENGTH: 312
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-254-465A-9

Query Match 96.1%; Score 1362; DB 4; Length 312;
Best Local Similarity 99.2%; Pred. No. 1.9e-125;
Matches 264; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              |||||||||||||||||| |||||||||||||||| ||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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RESULT 3
US-09-188-930-189
; Sequence 189, Application US/09188930A
; Patent No. 6150502
; GENERAL INFORMATION:
; APPLICANT: Watson, James D.
; APPLICANT: Strachan, Lorna
; APPLICANT: Sleeman, Matthew
; APPLICANT: Onrust, Rene
; APPLICANT: Murison, James Greg
; TITLE OF INVENTION: Compositions Isolated From Skin Cells
; TITLE OF INVENTION: and Methods For Their Use
; FILE REFERENCE: 11000.1011c1
; CURRENT APPLICATION NUMBER: US/09/188,930A
; CURRENT FILING DATE: 1998-11-09
; NUMBER OF SEQ ID NOS: 348
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 189
; LENGTH: 299
; TYPE: PRT
; ORGANISM: Human
; FEATURE:
; NAME/KEY: UNSURE
; LOCATION: (247)...(247)
; NAME/KEY: UNSURE
; LOCATION: (289)...(289)
US-09-188-930-189

Query Match 30.0%; Score 426; DB 3; Length 299;
Best Local Similarity 35.6%; Pred. No. 1e-33;
Matches 100; Conservative 42; Mismatches 99; Indels 40; Gaps 7;

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Qy          4 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 61
              || |||:|                              |:|||   | :   | |   :  :
Db         51 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 83

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
              ::|   :   |  |:||| | | | | ||   | | :  |  | | ||| |: |:  :||
Db         84 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 141

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              || |   | | :::|:|  |||||||| :  ||:     :|||| :|  || | |:
Db        142 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 201

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              :| |||||||||| |         ||:  : |:  |:|||:|  ::: :   |: :|
Db        202 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTXILLGILVFGIWFAY 261

Qy        241 RKGYFSKETSFQKSNSSSKA-----TTMSENDFKHTKSFII 276
               :|:| :   :|  || |      :  || :|| | ||::
Db        262 SRGHFDRT---KKGTSSKKVIYSQPSARSEXEFKQTSSFLV 299
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RESULT 4
US-09-188-930-331
; Sequence 331, Application US/09188930A
; Patent No. 6150502
; GENERAL INFORMATION:
; APPLICANT: Watson, James D.
; APPLICANT: Strachan, Lorna
; APPLICANT: Sleeman, Matthew
; APPLICANT: Onrust, Rene
; APPLICANT: Murison, James Greg
; TITLE OF INVENTION: Compositions Isolated From Skin Cells
; TITLE OF INVENTION: and Methods For Their Use
; FILE REFERENCE: 11000.1011c1
; CURRENT APPLICATION NUMBER: US/09/188,930A

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;  CURRENT FILING DATE: 1998-11-09
;  NUMBER OF SEQ ID NOS: 348
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 331
;   LENGTH: 299
;   TYPE: PRT
;   ORGANISM: Human
US-09-188-930-331

  Query Match             30.0%;  Score 426;  DB 3;  Length 299;
  Best Local Similarity   35.6%;  Pred. No. 1e-33;
  Matches  100;  Conservative   42;  Mismatches   99;  Indels   40;  Gaps    7;

Qy          4 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 61
              || |||:|                              |:|||    | :   | |   :  :
Db         51 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 83

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
              ::|    :    |  |:||| | | | | ||    | | :  |  | | ||| |: |:  :||
Db         84 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 141

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              ||  |    | | :::|:|  |||||||||  :  ||:     :|||| :|  || | |:
Db        142 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 201

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              :|  ||||||||||  |         ||:  : |:  |:|||:|  ::: :    |: :|
Db        202 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 261

Qy        241 RKGYFSKETSFQKSNSSSKA-----TTMSENDFKHTKSPII 276
              :|:| :    :|  || |       :  || :|| | ||::
Db        262 SRGHFDRT---KKGTSSKKVIYSQPSARSEGEFKQTSSFLV 299


RESULT 5
US-09-462-270-2
; Sequence 2, Application US/09462270
; Patent No. 6358707
; GENERAL INFORMATION:
;  APPLICANT:  SmithKline Beecham Corporation
;  TITLE OF INVENTION:  Human F11 Antigen: A Cell Surface
;  TITLE OF INVENTION:  Receptor   Involved in Platelet Aggregation
;  FILE REFERENCE:  GH-70150US
;  CURRENT APPLICATION NUMBER: US/09/462,270
;  CURRENT FILING DATE:  2000-01-05
;  PRIOR APPLICATION NUMBER:  60/052,186
;  PRIOR FILING DATE:  1997-07-10
;  NUMBER OF SEQ ID NOS:  4
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 2
;   LENGTH: 299
;   TYPE: PRT
;   ORGANISM: HOMO SAPIENS
US-09-462-270-2

  Query Match             30.0%;  Score 426;  DB 4;  Length 299;
  Best Local Similarity   35.6%;  Pred. No. 1e-33;
  Matches  100;  Conservative   42;  Mismatches   99;  Indels   40;  Gaps    7;

Qy          4 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 61
              || |||:|                              |:|||    | :   | |   :  :
Db         51 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 83

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
              ::|    :    |  |:||| | | | | ||    | | :  |  | | ||| |: |:  :||
Db         84 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 141

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              ||  |    | | :::|:|  |||||||||  :  ||:     :|||| :|  || | |:
Db        142 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 201

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              :|  ||||||||||  |         ||:  : |:  |:|||:|  ::: :    |: :|
Db        202 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 261

Qy        241 RKGYFSKETSFQKSNSSSKA-----TTMSENDFKHTKSPII 276
              :|:| :    :|  || |       :  || :|| | ||::
Db        262 SRGHFDRT---KKGTSSKKVIYSQPSARSEGEFKQTSSFLV 299


RESULT 6
US-09-254-465A-1
; Sequence 1, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 1
;   LENGTH: 299
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-1

  Query Match             30.0%;  Score 426;  DB 4;  Length 299;
  Best Local Similarity   35.6%;  Pred. No. 1e-33;
  Matches  100;  Conservative   42;  Mismatches   99;  Indels   40;  Gaps    7;

Qy          4 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 61
              || |||:|                              |:|||    | :   | |   :  :
Db         51 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 83

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
              ::|    :    |  |:||| | | | | ||    | | :  |  | | ||| |: |:  :||
Db         84 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 141

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              ||  |    | | :::|:|  |||||||||  :  ||:     :|||| :|  || | |:
Db        142 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 201

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              :|  ||||||||||  |         ||:  : |:  |:|||:|  ::: :    |: :|
Db        202 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 261

Qy        241 RKGYFSKETSFQKSNSSSKA-----TTMSENDFKHTKSPII 276
              :|:| :    :|  || |       :  || :|| | ||::
Db        262 SRGHFDRT---KKGTSSKKVIYSQPSARSEGEFKQTSSFLV 299


RESULT 7
US-09-312-283C-189
; Sequence 189, Application US/09312283C
; Patent No. 6573095
; GENERAL INFORMATION:
;  APPLICANT: Watson, James D.
;  APPLICANT:  Strachan, Lorna
;  APPLICANT:  Sleeman, Matthew
```

```
;  APPLICANT:  Onrust, Rene
;  APPLICANT:  Murison, James G.
;  APPLICANT:  Kumble, Krishanand D.
;  TITLE OF INVENTION: Compositions Isolated from Skin Cells
;  TITLE OF INVENTION:  and Methods for Their Use
;  FILE REFERENCE: 11000.1011c2
;  CURRENT APPLICATION NUMBER: US/09/312,283C
;  CURRENT FILING DATE:  1999-05-14
;  NUMBER OF SEQ ID NOS: 425
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 189
;   LENGTH: 299
;   TYPE: PRT
;   ORGANISM: Mouse
US-09-312-283C-189

  Query Match             30.0%;  Score 426;  DB 4;  Length 299;
  Best Local Similarity   35.6%;  Pred. No. 1e-33;
  Matches  100;  Conservative   42;  Mismatches   99;  Indels   40;  Gaps    7;

Qy          4 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 61
              || |||:|                              |:|||   | :   | |   :   :
Db         51 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 83

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
              ::|   :   |  |:||| | | | | ||   | | :  |  | | ||| |: |:  :||
Db         84 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 141

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              ||  |    | | :::|:|  |||||||| :  ||:     :|||| :|  || | |:
Db        142 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 201

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              :|  |||||||||||  |        ||:  : |:  |:|||:|  ::: :   |: :|
Db        202 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 261

Qy        241 RKGYFSKETSFQKSNSSSKA-----TTMSENDFKHTKSFII 276
              :|:| :    :|  || |      :  || :|| | ||::
Db        262 SRGHFDRT---KKGTSSKKVIYSQPSARSEGEFKQTSSFLV 299


RESULT 8
US-09-312-283C-331
; Sequence 331, Application US/09312283C
; Patent No. 6573095
; GENERAL INFORMATION:
;  APPLICANT: Watson, James D.
;  APPLICANT:  Strachan, Lorna
;  APPLICANT:  Sleeman, Matthew
;  APPLICANT:  Onrust, Rene
;  APPLICANT:  Murison, James G.
;  APPLICANT:  Kumble, Krishanand D.
;  TITLE OF INVENTION: Compositions Isolated from Skin Cells
;  TITLE OF INVENTION:  and Methods for Their Use
;  FILE REFERENCE: 11000.1011c2
;  CURRENT APPLICATION NUMBER: US/09/312,283C
;  CURRENT FILING DATE:  1999-05-14
;  NUMBER OF SEQ ID NOS: 425
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 331
;   LENGTH: 299
;   TYPE: PRT
;   ORGANISM: Mouse
US-09-312-283C-331

  Query Match             30.0%;  Score 426;  DB 4;  Length 299;
  Best Local Similarity   35.6%;  Pred. No. 1e-33;
  Matches  100;  Conservative   42;  Mismatches   99;  Indels   40;  Gaps    7;

Qy          4 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 61
              || |||:|                              |:|||   | :   | |   :   :
Db         51 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 83

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
              ::|   :   |  |:||| | | | | ||   | | :  |  | | ||| |: |:  :||
Db         84 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 141

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              ||  |    | | :::|:|  |||||||| :  ||:     :|||| :|  || | |:
Db        142 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 201

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              :|  |||||||||||  |        ||:  : |:  |:|||:|  ::: :   |: :|
Db        202 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 261

Qy        241 RKGYFSKETSFQKSNSSSKA-----TTMSENDFKHTKSFII 276
              :|:| :    :|  || |      :  || :|| | ||::
Db        262 SRGHFDRT---KKGTSSKKVIYSQPSARSEGEFKQTSSFLV 299


RESULT 9
US-09-254-465A-10
; Sequence 10, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 10
;   LENGTH: 300
;   TYPE: PRT
;   ORGANISM: Mus musculus
US-09-254-465A-10

  Query Match             28.9%;  Score 410;  DB 4;  Length 300;
  Best Local Similarity   35.9%;  Pred. No. 3.7e-32;
  Matches   99;  Conservative   49;  Mismatches  116;  Indels   12;  Gaps    6;

Qy          7 FSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRA 65
              ::|  | ||       |:|    |       |:||| : | : : | |   :   : :|
Db         31 YTAQSDVQVPE----NESIKLTCTYSGFSSPRVEWKFVQGSTTALVCYNSQITAPYADRV 86

Qy         66 EMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALS 125
                 |  :||| | |:| | ||   | |||  | :: | ||| |: |:  ||||
Db         87 TFSSSGITFSSVTRKDNGEYTCMVS--EEGGQNYGEVSIHLTVLVPPSKPTISVPSSVTI 144

Qy        126 GTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQS-TNSSYTMNTKTGTLQFNTVSK 184
              |    | | : :|:|  ||:|||||| :|      :::  |||:|:: |:| | |: |:
Db        145 GNRAVLTCSEHDGSPPSEYSWFKDGISMLTADAKKTRAFMNSSFTIDPKSGDLIFDPVTA 204

Qy        185 LDTGEYSCEARNSVG-YRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKG 243
              |:||| |:|:|  |    |       |   :||: ||:|||:|  ::: :   || :|  :|
Db        205 FDSGEYYCQAQNGYGTAMRSEAAHMDAVELNVGGIVAAVLVTLILLGLLIFGVWFAYSRG 264

Qy        244 YF---SKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||    | |:  |     |: :| || :|| | ||::
Db        265 YFETTKKGTAPGKKVIYSQPSTRSEGEFKQTSSFLV 300
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RESULT 10
US-09-254-465A-23
; Sequence 23, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 23
;   LENGTH: 260
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-23

  Query Match             28.1%;  Score 399;  DB 4;  Length 260;
  Best Local Similarity   35.5%;  Pred. No. 3.6e-31;
  Matches   94;  Conservative   39;  Mismatches   96;  Indels   36;  Gaps    6;

Qy          4 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 61
              || |||:|                            |:|||   | :   | |   :   :
Db         28 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 60

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
              ::|   :   |  |:||| | | | | ||   | | :  | . | | ||| |: |:  :||
Db         61 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 118

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              ||  |    | | :::|:|  |||||||| :  ||:     :|||| :|  || | |:
Db         19 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 178

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              :|  |||||||||||  |        ||:  : |:  |:|||:|  ::: :   |: :|
Db        179 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 238

Qy        241 RKGYFSKETSFQKSNSSSKATTMSE 265
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Db        239 SRGHFDR----TKKGTSSKKVIYSQ 259


RESULT 11
US-09-254-465A-25
; Sequence 25, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 25
;   LENGTH: 263
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-25

  Query Match             28.1%;  Score 399;  DB 4;  Length 263;
  Best Local Similarity   35.5%;  Pred. No. 3.7e-31;
  Matches   94;  Conservative   39;  Mismatches   96;  Indels   36;  Gaps    6;

Qy          4 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 61
              || |||:|                            |:|||   | :   | |   :   :
Db         31 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 63

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
              ::|   :   |  |:||| | | | | ||   | | :  | . | | ||| |: |:  :||
Db         64 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 121

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              ||  |    | | :::|:|  |||||||| :  ||:     :|||| :|  || | |:
Db        122 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 181

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              :|  |||||||||||  |        ||:  : |:  |:|||:|  ::: :   |: :|
Db        182 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 241

Qy        241 RKGYFSKETSFQKSNSSSKATTMSE 265
              :|:| :     |  :|||    |:
Db        242 SRGHFDR----TKKGTSSKKVIYSQ 262


RESULT 12
US-09-462-270-4
; Sequence 4, Application US/09462270
; Patent No. 6358707
; GENERAL INFORMATION:
;  APPLICANT:  SmithKline Beecham Corporation
;  TITLE OF INVENTION:  Human F11 Antigen: A Cell Surface
;  TITLE OF INVENTION:  Receptor  Involved in Platelet Aggregation
;  FILE REFERENCE:  GH-70150US
;  CURRENT APPLICATION NUMBER: US/09/462,270
;  CURRENT FILING DATE:  2000-01-05
;  PRIOR APPLICATION NUMBER:  60/052,186
;  PRIOR FILING DATE:  1997-07-10
;  NUMBER OF SEQ ID NOS:  4
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 4
;   LENGTH: 205
;   TYPE: PRT
;   ORGANISM: HOMO SAPIENS
US-09-462-270-4

  Query Match             18.9%;  Score 268.5;  DB 4;  Length 205;
  Best Local Similarity   35.6%;  Pred. No. 1.6e-18;
  Matches   64;  Conservative   22;  Mismatches   63;  Indels   31;  Gaps    4;

Qy          4 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 61
              || |||:|                            |:|||   | :   | |   :   :
Db         51 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 83
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Qy          62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
               ::|   :   |  |:||| | | | | ||   | | :  |  | | ||| |: |:  :||
Db          84 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 141

Qy         122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
               ||  |    | | :::|:|  |||||||| :  ||:     :|||| :|  || | | :
Db         142 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFES 201


RESULT 13
US-09-254-465A-24
; Sequence 24, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 24
;   LENGTH: 270
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-24

  Query Match             16.3%;  Score 231;  DB 4;  Length 270;
  Best Local Similarity   28.6%;  Pred. No. 1.1e-14;
  Matches   72;  Conservative   41;  Mismatches   97;  Indels   42;  Gaps   11;

Qy           8 SAPKDQQVVTAVXYQEAILACKTPKKTVXSR---LEWKKL-----GRSVSFVYYQQT-LQ 58
               |    | |: |   :   | | |   :  ||   ::| ||       | | : :  :  :
Db           9 SVETPQDVLRASQGKSVTLPC-TYHTSTSSREGLIQWDKLLLTHTERVVIWPFSNKNYIH 67

Qy          59 GD-FKNR------AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDT---VTLEV 108
               |: :|||      ||  | :| |  :| :| | | | ||  |:    || :|   | | |
Db          68 GELYKNRVSISNNAEQSDASITIDQLTMADNGTYECSVSLMSD----LEGNTKSRVRLLV 123

Qy         109 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSY 168
               || |: | | :    : |  ::| || |||:| |:|:| :  |   | |      |
Db         124 LVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNILNQEQPLAQPASGQPVS 183

Qy         169 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCP-GKRMQVDDLNIS-------GIIA 220
               |  | |           :| | | : |  | : |     ::   :|::       |::|
Db         184 LKNISTDT----------SGYYICTSSNEEGTQFCNITVAVRSPSMNVALYVGIAVGVVA 233

Qy         221 AVVVVALVISVC 232
               |:::: ::|  |
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RESULT 14
US-09-254-465A-26
; Sequence 26, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
;  APPLICANT:  Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION:  COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE:  P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/254,465A
;  CURRENT FILING DATE:  1999-03-05
;  PRIOR APPLICATION NUMBER:  PCT/US98/24855
;  PRIOR FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  US 60/066,364
;  PRIOR FILING DATE:  1997-11-21
;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 26
;   LENGTH: 273
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-26

  Query Match             16.3%;  Score 231;  DB 4;  Length 273;
  Best Local Similarity   28.6%;  Pred. No. 1.1e-14;
  Matches   72;  Conservative   41;  Mismatches   97;  Indels   42;  Gaps   11;

Qy           8 SAPKDQQVVTAVXYQEAILACKTPKKTVXSR---LEWKKL-----GRSVSFVYYQQT-LQ 58
               |    | |: |   :   | | |   :  ||   ::| ||       | | : :  :  :
Db          12 SVETPQDVLRASQGKSVTLPC-TYHTSTSSREGLIQWDKLLLTHTERVVIWPFSNKNYIH 70

Qy          59 GD-FKNR------AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDT---VTLEV 108
               |: :|||      ||  | :| |  :| :| | | | ||  |:    || :|   | | |
Db          71 GELYKNRVSISNNAEQSDASITIDQLTMADNGTYECSVSLMSD----LEGNTKSRVRLLV 126

Qy         109 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSY 168
               || |: | | :    : |  ::| || |||:| |:|:| :  |   | |      |
Db         127 LVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNILNQEQPLAQPASGQPVS 186

Qy         169 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCP-GKRMQVDDLNIS-------GIIA 220
               |  | |           :| | | : |  | : |     ::   :|::       |::|
Db         187 LKNISTDT----------SGYYICTSSNEEGTQFCNITVAVRSPSMNVALYVGIAVGVVA 236

Qy         221 AVVVVALVISVC 232
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Db         237 ALIIIGIIIYCC 248


RESULT 15
US-08-597-495B-22
; Sequence 22, Application US/08597495B
; Patent No. 5712369
;  GENERAL INFORMATION:
;    APPLICANT:  Old, Lloyd J.;  Welt, Sydney; Ritter, Gerd;
;    APPLICANT:  Simpson, Richard J.; Nice, Edouard; Moritz, R. L.;
;    APPLICANT:  Catimel, B.; Ji, Hong; Burgess, Anthony W.;
;    APPLICANT:  Heath, Joan K.; White, Sara J.; Johnstone, Cameron
;    TITLE OF INVENTION:  Colon Cell And Colon Cancer Cell
;    TITLE OF INVENTION:  Associated Nucleic Acid Molecules, Protein And Peptides
;    NUMBER OF SEQUENCES:  29
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Felfe & Lynch
;      STREET:  805 Third Avenue
;      CITY:  New York City
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10022
;    COMPUTER READABLE FORM:
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;       MEDIUM TYPE:  Diskette, 3.5 inch, 360 kb storage
;       COMPUTER:  IBM PS/2
;       OPERATING SYSTEM:  PC-DOS
;       SOFTWARE:  Wordperfect
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/597,495B
;       FILING DATE:  02-Feb-1996
;       CLASSIFICATION:  435
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  08/511,876
;       FILING DATE:  04-Aug-1995
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Hanson, No. 5712369man D.
;       REGISTRATION NUMBER:  30,946
;       REFERENCE/DOCKET NUMBER:  LUD 5316.1
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (212) 688-9200
;       TELEFAX:  (212) 838-3884
;   INFORMATION FOR SEQ ID NO:  22:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  319 amino acids
;       TYPE:  amino acid
;       TOPOLOGY:  linear
US-08-597-495B-22

  Query Match             16.3%;  Score 231;  DB 1;  Length 319;
  Best Local Similarity   28.6%;  Pred. No. 1.4e-14;
  Matches   72;  Conservative   41;  Mismatches   97;  Indels   42;  Gaps   11;

Qy          8 SAPKDQQVVTAVXYQEAILACKTPKKTVXSR---LEWKKL-----GRSVSFVYYQQT-LQ 58
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Db         23 SVETPQDVLRASQGKSVTLPC-TYHTSTSSREGLIQWDKLLLTHTERVVIWPFSNKNYIH 81

Qy         59 GD-FKNR------AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDT---VTLEV 108
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Db         82 GELYKNRVSISNNAEQSDASITIDQLTMADNGTYECSVSLMSD----LEGNTKSRVRLLV 137

Qy        109 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSY 168
              || |: | | :    : |  ::| || |||:| |:|:| :  |   | |     |
Db        138 LVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNILNQEQPLAQPASGQPVS 197

Qy        169 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCP-GKRMQVDDLNIS-------GIIA 220
                | | |           :| | | : |  | : |     ::   :|::       |::|
Db        198 LKNISTDT----------SGYYICTSSNEEGTQFCNITVAVRSPSMNVALYVGIAVGVVA 247

Qy        221 AVVVVALVISVC 232
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Db        248 ALIIIGIIIYCC 259


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GenCore version 5.1.6

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Total number of hits satisfying chosen parameters: 684280

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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18: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1415	99.8	298	9	US-09-745-763-38	Sequence 38, Appl
2	1415	99.8	298	9	US-09-799-777-30	Sequence 30, Appl
3	1415	99.8	298	15	US-10-139-849-2	Sequence 2, Appli
4	1415	99.8	298	16	US-10-192-791-2	Sequence 2, Appli
5	1414	99.7	298	9	US-09-853-161-76	Sequence 76, Appl
6	1414	99.7	298	9	US-09-852-659A-76	Sequence 76, Appl
7	1414	99.7	298	10	US-09-852-797-76	Sequence 76, Appl
8	1362	96.1	312	10	US-09-909-320-64	Sequence 64, Appl
9	1362	96.1	312	10	US-09-909-088B-64	Sequence 64, Appl
10	1362	96.1	312	10	US-09-905-291A-64	Sequence 64, Appl
11	1362	96.1	312	10	US-09-953-499-9	Sequence 9, Appli
12	1362	96.1	312	10	US-09-902-853-64	Sequence 64, Appl
13	1362	96.1	312	10	US-09-907-824-64	Sequence 64, Appl
14	1362	96.1	312	10	US-09-907-841-64	Sequence 64, Appl
15	1362	96.1	312	11	US-09-904-011-64	Sequence 64, Appl
16	1362	96.1	312	11	US-09-906-742-64	Sequence 64, Appl
17	1362	96.1	312	11	US-09-906-838-64	Sequence 64, Appl
18	1362	96.1	312	11	US-09-907-613-64	Sequence 64, Appl
19	1362	96.1	312	11	US-09-907-942-64	Sequence 64, Appl
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21	1362	96.1	312	11	US-09-909-204-64	Sequence 64, Appl
22	1362	96.1	312	11	US-09-904-820-64	Sequence 64, Appl
23	1362	96.1	312	11	US-09-904-786-64	Sequence 64, Appl
24	1362	96.1	312	11	US-09-906-646-64	Sequence 64, Appl
25	1362	96.1	312	11	US-09-906-700-64	Sequence 64, Appl
26	1362	96.1	312	11	US-09-903-786-64	Sequence 64, Appl
27	1362	96.1	312	11	US-09-902-903-64	Sequence 64, Appl
28	1362	96.1	312	11	US-09-903-749A-64	Sequence 64, Appl
29	1362	96.1	312	11	US-09-904-119-64	Sequence 64, Appl
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31	1362	96.1	312	11	US-09-902-736-64	Sequence 64, Appl
32	1362	96.1	312	11	US-09-907-794-64	Sequence 64, Appl
33	1362	96.1	312	11	US-09-903-943-64	Sequence 64, Appl
34	1362	96.1	312	11	US-09-904-462-64	Sequence 64, Appl
35	1362	96.1	312	11	US-09-907-925-64	Sequence 64, Appl
36	1362	96.1	312	11	US-09-902-692-64	Sequence 64, Appl
37	1362	96.1	312	11	US-09-903-520-64	Sequence 64, Appl
38	1362	96.1	312	11	US-09-905-056-64	Sequence 64, Appl
39	1362	96.1	312	11	US-09-909-064-64	Sequence 64, Appl
40	1362	96.1	312	11	US-09-904-553-64	Sequence 64, Appl
41	1362	96.1	312	11	US-09-905-381-64	Sequence 64, Appl
42	1362	96.1	312	11	US-09-905-088-64	Sequence 64, Appl
43	1362	96.1	312	11	US-09-907-575-64	Sequence 64, Appl
44	1362	96.1	312	11	US-09-905-075-64	Sequence 64, Appl
45	1362	96.1	312	11	US-09-902-759-64	Sequence 64, Appl

ALIGNMENTS

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RESULT 1
US-09-745-763-38
; Sequence 38, Application US/09745763
; Patent No. US20020065394A1
;  GENERAL INFORMATION:
;       APPLICANT: Jacobs, Kenneth
;                  McCoy, John M.
;                  LaVallie, Edward R.
;                  Collins-Racie, Lisa A.
;                  Evans, Cheryl
;                  Merberg, David
;                  Treacy, Maurice
;                  Spaulding, Vikki
;       TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES
;                           ENCODING THEM
;       NUMBER OF SEQUENCES: 219
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Genetics Institute, Inc.
;            STREET: 87 CambridgePark Drive
;            CITY: Cambridge
;            STATE: MA
;            COUNTRY: U.S.A.
;            ZIP: 02140
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.30
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/745,763
;            FILING DATE: 18-Jun-2000
;            CLASSIFICATION: <Unknown>
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Sprunger, Suzanne A.
;            REGISTRATION NUMBER: 41,323
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: (617) 498-8284
;            TELEFAX: (617) 876-5851
```

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;   INFORMATION FOR SEQ ID NO: 38:
;      SEQUENCE CHARACTERISTICS:
;            LENGTH: 298 amino acids
;            TYPE: amino acid
;            STRANDEDNESS: <Unknown>
;            TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 38:
US-09-745-763-38

  Query Match             99.8%;  Score 1415;  DB 9;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 2.5e-125;
  Matches  274;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              |||||||||||||||||| |||||||||||||| ||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 2
US-09-799-777-30
; Sequence 30, Application US/09799777
; Patent No. US20020091244A1
;   GENERAL INFORMATION:
;        APPLICANT: Lal, Preeti
;                   Hillman, Jennifer L.
;                   Corley, Neil C.
;                   Guegler, Karl J.
;                   Baugh, Mariah
;                   Sather, Susan
;                   Shah, Purvi
;        TITLE OF INVENTION: HUMAN SIGNAL PEPTIDE-CONTAINING PROTEINS
;        NUMBER OF SEQUENCES: 154
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
;             STREET: 3174 PORTER DRIVE
;             CITY: PALO ALTO
;             STATE: CALIFORNIA
;             COUNTRY: USA
;             ZIP: 94304
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/799,777
;             FILING DATE: 06-Mar-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/002,485
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: BILLINGS, LUCY J.
;             REGISTRATION NUMBER: 36,749
;             REFERENCE/DOCKET NUMBER: PF-0459 US
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (650) 855-0555
;             TELEFAX: (650) 845-4166
;   INFORMATION FOR SEQ ID NO: 30:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        IMMEDIATE SOURCE:
;             LIBRARY: DUODNOT02
;             CLONE: 1704050
;        SEQUENCE DESCRIPTION: SEQ ID NO: 30 :
US-09-799-777-30

  Query Match             99.8%;  Score 1415;  DB 9;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 2.5e-125;
  Matches  274;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              |||||||||||||||||| |||||||||||||| ||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 3
US-10-139-849-2
; Sequence 2, Application US/10139849
; Publication No. US20030079238A1
;   GENERAL INFORMATION:
;        APPLICANT: Cunningham, Sonia
;                   Barros, Maria Pia
;        TITLE OF INVENTION: A POLYNUCLEOTIDE ENCODING A HUMAN
;                            JUNCTIONAL ADHESION PROTEIN (JAM 2)
;        NUMBER OF SEQUENCES: 10
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Rockey, Milnamow & Katz, Ltd.
;             STREET: 180 N. Stetson Avenue, 2 Prudential Plaza,
;                     Suite 4700
;             CITY: Chicago
;             STATE: IL
;             COUNTRY: U.S.A.
;             ZIP: 60601
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/139,849
;             FILING DATE: 07-May-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/643,929
;             FILING DATE: 23-Aug-2000
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Katz, Martin L.
;             REGISTRATION NUMBER: 25,011
;        TELECOMMUNICATION INFORMATION:
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;             TELEPHONE: 312-616-5400
;             TELEFAX: 312-616-5460
;   INFORMATION FOR SEQ ID NO: 2:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-10-139-849-2

  Query Match             99.8%;  Score 1415;  DB 15;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 2.5e-125;
  Matches  274;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
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Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 4
US-10-192-791-2
; Sequence 2, Application US/10192791
; Publication No. US20030130166A1
; GENERAL INFORMATION:
;  APPLICANT: Texas Biotechnology Corporation
;  TITLE OF INVENTION: A Polynucleotide Encoding a Human Junctional Adhesion Protein (JA
;  FILE REFERENCE: TEX4542P0430
;  CURRENT APPLICATION NUMBER: US/10/192,791
;  CURRENT FILING DATE:  2003-12-10
;  NUMBER OF SEQ ID NOS: 10
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-192-791-2

  Query Match             99.8%;  Score 1415;  DB 16;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 2.5e-125;
  Matches  274;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              |||||||||||||||||| |||||||||||||| |||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 5
US-09-853-161-76
; Sequence 76, Application US/09853161
; Patent No. US20020076756A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P3
;  CURRENT APPLICATION NUMBER: US/09/853,161
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 118
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-853-161-76

  Query Match             99.7%;  Score 1414;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 3.1e-125;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
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Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 6
US-09-852-659A-76
; Sequence 76, Application US/09852659A
; Patent No. US20020077287A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P4
;  CURRENT APPLICATION NUMBER: US/09/852,659A
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 121
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-659A-76

  Query Match             99.7%;  Score 1414;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 3.1e-125;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 7
US-09-852-797-76
; Sequence 76, Application US/09852797
; Patent No. US20020172994A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P2
;  CURRENT APPLICATION NUMBER: US/09/852,797
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 118
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-797-76

  Query Match             99.7%;  Score 1414;  DB 10;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 3.1e-125;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202
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Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 8
US-09-909-320-64
; Sequence 64, Application US/09909320
; Patent No. US20020132240A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/909,320
;  CURRENT FILING DATE:  2002-01-04
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-909-320-64

  Query Match             96.1%;  Score 1362;  DB 10;  Length 312;
  Best Local Similarity   99.2%;  Pred. No. 2.7e-120;
  Matches  264;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
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Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
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Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 9
US-09-909-088B-64
; Sequence 64, Application US/09909088B
; Patent No. US20020146709A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/909,088B
;  CURRENT FILING DATE:  2001-07-18
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;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-909-088B-64

  Query Match             96.1%;  Score 1362;  DB 10;  Length 312;
  Best Local Similarity   99.2%;  Pred. No. 2.7e-120;
  Matches  264;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
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Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
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Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
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Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 10
US-09-905-291A-64
; Sequence 64, Application US/09905291A
; Patent No. US20020160374A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/905,291A
;  CURRENT FILING DATE:  2001-07-12
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-291A-64

  Query Match             96.1%;  Score 1362;  DB 10;  Length 312;
  Best Local Similarity   99.2%;  Pred. No. 2.7e-120;
  Matches  264;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;
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Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
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Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
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Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 11
US-09-953-499-9
; Sequence 9, Application US/09953499
; Publication No. US20020182206A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Fong, Sherman
; APPLICANT: Goddard, Audrey
; APPLICANT: Gurney, Austin L.
; APPLICANT: Napier, Mary A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Wood, William I.
; TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
; TITLE OF INVENTION: OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
; FILE REFERENCE: P1216R1(US)
; CURRENT APPLICATION NUMBER: US/09/953,499
; CURRENT FILING DATE: 2001-09-14
; PRIOR APPLICATION NUMBER: US/09/254,465
; PRIOR FILING DATE: 1999-03-05
; PRIOR APPLICATION NUMBER: PCT/US98/24855
; PRIOR FILING DATE: 1998-11-20
; PRIOR APPLICATION NUMBER: US 60/066,364
; PRIOR FILING DATE: 1997-11-21
; PRIOR APPLICATION NUMBER: US 60/078,936
; PRIOR FILING DATE: 1998-03-20
; PRIOR APPLICATION NUMBER: PCT/US98/19437
; PRIOR FILING DATE: 1998-09-17
; NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 9
; LENGTH: 312
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-953-499-9

Query Match 96.1%; Score 1362; DB 10; Length 312;
Best Local Similarity 99.2%; Pred. No. 2.7e-120;
Matches 264; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
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Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
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Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 12
US-09-902-853-64
; Sequence 64, Application US/09902853
; Publication No. US20020192659A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/902,853
; CURRENT FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: US/09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20

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;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-902-853-64

  Query Match             96.1%;  Score 1362;  DB 10;  Length 312;
  Best Local Similarity   99.2%;  Pred. No. 2.7e-120;
  Matches  264;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
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Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
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Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 13
US-09-907-824-64
; Sequence 64, Application US/09907824
; Publication No. US20020197671A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,824
;  CURRENT FILING DATE:  2001-07-17
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-907-824-64

  Query Match             96.1%;  Score 1362;  DB 10;  Length 312;
  Best Local Similarity   99.2%;  Pred. No. 2.7e-120;
  Matches  264;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              |||||||||||||||||| |||||||||||||| ||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
              |||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 14
US-09-907-841-64
; Sequence 64, Application US/09907841
; Publication No. US20020198366A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
```

```
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,841
;  CURRENT FILING DATE:  2001-11-20
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-907-841-64

  Query Match             96.1%;  Score 1362;  DB 10;  Length 312;
  Best Local Similarity   99.2%;  Pred. No. 2.7e-120;
  Matches  264;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              |||||||||||||||||| ||||||||||||| ||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
              |||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 15
US-09-904-011-64
; Sequence 64, Application US/09904011
; Publication No. US20030003530A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/904,011
;  CURRENT FILING DATE:  2001-07-11
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
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; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-904-011-64

  Query Match 96.1%; Score 1362; DB 11; Length 312;
  Best Local Similarity 99.2%; Pred. No. 2.7e-120;
  Matches 264; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||| ||||||||||||||| |||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSEN 266
              |||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSEN 288
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Search completed: December 9, 2003, 17:22:01
Job time : 25.4843 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:09:51 ; Search time 13.9443 Seconds
(without alignments)
1903.477 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 1418
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 283308

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	426	30.0	299	2	S56749	junctional adhesio
2	190.5	13.4	365	2	JC7780	coxsackie- and ade
3	186	13.1	811	2	A41054	fasciclin II, tran
4	186	13.1	873	2	B41054	fasciclin II PI-li
5	171	12.1	6642	2	T29757	protein UNC-89 - C
6	163.5	11.5	7962	2	I38346	elastic titin - hu
7	160.5	11.3	1367	2	A41228	protein-tyrosine k
8	157	11.1	344	2	A27681	nonspecific cross-
9	157	11.1	860	2	JC5702	ErbB kinase activa
10	157	11.1	868	2	JC5701	ErbB kinase activa
11	155.5	11.0	1328	2	T23007	hypothetical prote
12	155.5	11.0	2783	2	T34416	hypothetical prote
13	155	10.9	725	2	JE0100	neural cell adhesi
14	155	10.9	850	2	JC5700	ErbB kinase activa
15	153.5	10.8	521	2	JC1508	biliary glycoprote
16	152	10.7	773	2	T46283	hypothetical prote
17	152	10.7	5175	2	T20992	hypothetical prote
18	152	10.7	5198	2	T43290	hemicentin precurs
19	151.5	10.7	1033	2	S19247	cell adhesion prot
20	151	10.6	1092	1	JN0635	neural cell adhesi
21	151	10.6	1501	2	I58148	protein-tyrosine-p
22	151	10.6	1863	2	S46217	protein-tyrosine-p
23	150.5	10.6	521	2	S34338	biliary glycoprote
24	150	10.6	1499	2	I50212	protein-tyrosine-p
25	150	10.6	1907	2	S50893	protein-tyrosine-p
26	148.5	10.5	519	2	A44783	ecto-ATPase precur
27	148	10.4	725	2	JE0099	neural cell adhesi
28	148	10.4	1088	1	IJXLNL	neural cell adhesi
29	148	10.4	1277	2	T30532	neural cell adhesi
30	147.5	10.4	1091	1	IJCHNL	neural cell adhesi
31	147.5	10.4	4162	2	T42633	connectin/titin -
32	147	10.4	417	2	JH0394	biliary glycoprote
33	147	10.4	464	2	C30127	transmembrane carc
34	147	10.4	526	1	A32164	biliary glycoprote
35	147	10.4	1897	1	TDHULK	leukocyte antigen-
36	146.5	10.3	458	1	WMMSR1	biliary glycoprote
37	146.5	10.3	761	1	IJHUNG	neural cell adhesi
38	146	10.3	1051	2	A39712	kinase-like protei
39	145	10.2	333	2	A31923	amalgam protein pr
40	144.5	10.2	349	2	A34815	carcinoembryonic a
41	144.5	10.2	352	2	T33433	hypothetical prote
42	144.5	10.2	423	2	T29549	hypothetical prote
43	144.5	10.2	1273	2	T42405	sax-3 protein - Ca
44	144	10.2	1239	1	A32579	neuroglian - fruit
45	144	10.2	4391	2	A38096	perlecan precursor

ALIGNMENTS

RESULT 1
S56749
junctional adhesion molecule precursor - human
N;Alternate names: F11 platelet antigen; platelet adhesion molecule PAM-1; platelet F11
C;Species: Homo sapiens (man)
C;Date: 27-Oct-1995 #sequence_revision 01-Feb-2002 #text_change 01-Feb-2002
C;Accession: A59406; S56749
R;Ozaki, H.; Ishii, K.; Horiuchi, H.; Arai, H.; Kawamoto, T.; Okawa, K.; Iwamatsu, A.;
J. Immunol. 163, 553-557, 1999
A;Title: Cutting edge: combined treatment of TNF-alpha and IFN-gamma causes redistribut
A;Reference number: A59406; MUID:99323940; PMID:10395639
A;Accession: A59406
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-299 <OZA>
A;Cross-references: GB:AAD42050; NID:g5326797; PIDN:AAD42050.1
R;Naik, U.P.; Ehrlich, Y.H.; Kornecki, E.
Biochem. J. 310, 155-162, 1995
A;Title: Mechanisms of platelet activation by a stimulatory antibody: cross-linking of
A;Reference number: S56749; MUID:95374438; PMID:7646439
A;Accession: S56749
A;Molecule type: protein
A;Residues: 28-49,'X',51-53;62-73,'E',75-103;123,'F',125-130;'FDKDXTIYLNXY';'LT',206,'X'
A;Note: the order of the peptides other than the amino terminus was not determined
C;Genetics:
A;Gene: JAM
C;Keywords: glycoprotein; phosphoprotein; platelet aggregation; platelet membrane
F;1-25/Domain: signal sequence #status predicted <SIG>
F;26-299/Product: junctional adhesion molecule #status predicted <MAT>

Query Match 30.0%; Score 426; DB 2; Length 299;
Best Local Similarity 35.6%; Pred. No. 1.4e-26;
Matches 100; Conservative 42; Mismatches 99; Indels 40; Gaps 7;

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Qy          4 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 61
              || |||:|                              |:|||   | :   | |   :   :
Db         51 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 83

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
              ::|   :   | |:||| | | | | ||   | | :   |  | | ||| |: |:  :||
Db         84 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 141

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              || |   | | :::|:|  |||||||| :  ||:     :|||| :|  || | |:
Db        142 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 201

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              :|  |||||||||||  |        ||:  : |:  |:|||:|  ::: :   |: :|
Db        202 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 261

Qy        241 RKGYFSKETSFQKSNSSSKA-----TTMSENDFKHTKSFII 276
               :|:| :    :|  || |      :  || :|| | ||::
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Db        262 SRGHFDRT---KKGTSSKKVIYSQPSARSEGEFKQTSSFLV 299


RESULT 2
JC7780
coxsackie- and adenovirus receptor - bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 02-Apr-2002 #sequence_revision 02-Apr-2002 #text_change 02-Apr-2002
C;Accession: JC7780
R;Thoelen, I.; Keyaerts, E.; Lindberg, M.; Van Ranst, M.
Biochem. Biophys. Res. Commun. 288, 805-808, 2001
A;Title: Characterization of a cDNA encoding the bovine coxsackie and adenovirus receptc
A;Reference number: JC7780
A;Contents: Liver
A;Accession: JC7780
A;Molecule type: mRNA
A;Residues: 1-365 <THO>
A;Cross-references: GB:AY033651
C;Comment: This protein serves as the primary adenoviral attachment site on bovine cells

  Query Match             13.4%;  Score 190.5;  DB 2;  Length 365;
  Best Local Similarity   24.1%;  Pred. No. 1e-07;
  Matches   73;  Conservative   43;  Mismatches  122;  Indels   65;  Gaps   11;

Qy          6 GFSAPKDQQVVTAVXYQEAILACK---TPKKTVXSRLEW-------KKL--------GRS 47
              | |     :|::     : | | ||     |:       :||        :|:         |
Db         19 GLSITTPEQMIEKAKGETAYLPCKFTLGPEDQGPLDIEWLLSPADNQKVDQVIILYSGDK 78

Qy         48 VSFVYYQQTLQGDFKNRAEMI-------DFNIRIKNVTRSDAGKYRCEV-SAPSEQGQNL 99
              :   |||      | | |             | :| : |:  || | |:|:|  ||     : :
Db         79 IYDDYYQ-----DLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKKAPGVGNKKI 133

Qy        100 EEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRL 159
              :     | ||| |:   | |  |    :|:|: |||:    | | |
Db        134 Q-----LTVLVKPSGIRCYVDGSEEIGNDFKLKCEPKEGSLPLRYEWQK---------LS 179

Qy        160 GSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRC--------PGKRMQVD 211
              ||    :|:      :  :      |   :| |:|  || ||  :|         |  |
Db        180 DSQKLPTSWLPEMTSPVISVKNASAEYSGTYTCTVRNRVGSDQCLLRLDVVPPSNRAGTI 239

Qy        212 DLNISGIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQ--------KSNSSSKATTM 263
              : | : |:|::||::   |       :|:  : ||             || :|:  : :
Db        240 AGAVIGTLLALVLIALIVFCCH----KKRREEKYEKEVHHDIREDVPPPKSRTSTARSYI 295

Qy        264 SEN 266
              |
Db        296 GSN 298


RESULT 3
A41054
fasciclin II, transmembrane splice form precursor - fruit fly (Drosophila melanogaster)
C;Species: Drosophila melanogaster
C;Date: 21-Apr-1992 #sequence_revision 21-Apr-1992 #text_change 17-Mar-2000
C;Accession: A41054
R;Grenningloh, G.; Rehm, E.J.; Goodman, C.S.
Cell 67, 45-57, 1991
A;Title: Genetic analysis of growth cone guidance in Drosophila: fasciclin II functions
A;Reference number: A41054; MUID:92005695; PMID:1913818
A;Accession: A41054
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-811 <GRE>
A;Cross-references: GB:M77165; NID:g157402; PID:g157403
C;Genetics:
A;Gene: FlyBase:Fas2
A;Cross-references: FlyBase:FBgn0000635
C;Superfamily: neural cell adhesion molecule; fibronectin type III repeat homology; immu
C;Keywords: membrane protein

  Query Match             13.1%;  Score 186;  DB 2;  Length 811;
  Best Local Similarity   24.6%;  Pred. No. 6.2e-07;
  Matches   67;  Conservative   50;  Mismatches  101;  Indels   54;  Gaps   13;

Qy          8 SAPKDQQVVTAVXYQEAILACKT---PKKTVXSRLEWKKLG---RSVSFVYYQQTLQGDF 61
              :||::|         |: :: |:     |   |:     :| : |    |: :   |  ||
Db        142 NAPENQYPTLG---QDYVVMCEVKADPNPTI----DWLRNGDPIRTTNDKYVVQT----- 189

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
                        : |:||  || | | |  :|  | |: ||  |: :|| : | : |
Db        190 --------NGLLIRNVQESDEGIYTCR-AAVIETGELLER-TIRVEVFIQPEIISLPTNL 239

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              |: |       |  : | | || :| :|  :|        : :|   : :| :|| :  ::
Db        240 EAVEGKPFAANCTAR-GKPVPEISWIRDATQL-------NVATADRFQVNPQTGLVTISS 291

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-----RMQVDDL-NISGIIAAVVVVALVISVCGLG 235
              ||: | | |:| |:|  |       |      | |: :| |::|     : :
Db        292 VSQDDYGTYTCLAKNRAGVVDQKTKLNVLVRPQIYELYNVTGARTKEIAI---------- 341

Qy        236 VCYAQRKGYFSKETSFQKSNSSSKATTMSEND 267
              | |  ||  :   :|::  :  : |   ::|
Db        342 TCRA--KGRPAPAITFRRWGTQEEYTNGQQDD 371


RESULT 4
B41054
fasciclin II PI-linked splice form precursor - fruit fly (Drosophila melanogaster)
C;Species: Drosophila melanogaster
C;Date: 21-Apr-1992 #sequence_revision 21-Apr-1992 #text_change 17-Mar-2000
C;Accession: B41054
R;Grenningloh, G.; Rehm, E.J.; Goodman, C.S.
Cell 67, 45-57, 1991
A;Title: Genetic analysis of growth cone guidance in Drosophila: fasciclin II functions
A;Reference number: A41054; MUID:92005695; PMID:1913818
A;Accession: B41054
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-873 <GRE>
A;Cross-references: GB:M77166
C;Genetics:
A;Gene: FlyBase:Fas2
A;Cross-references: FlyBase:FBgn0000635
C;Superfamily: neural cell adhesion molecule; fibronectin type III repeat homology; imm
C;Keywords: transmembrane protein

  Query Match             13.1%;  Score 186;  DB 2;  Length 873;
  Best Local Similarity   24.6%;  Pred. No. 6.7e-07;
  Matches   67;  Conservative   50;  Mismatches  101;  Indels   54;  Gaps   13;

Qy          8 SAPKDQQVVTAVXYQEAILACKT---PKKTVXSRLEWKKLG---RSVSFVYYQQTLQGDF 61
              :||::|         |: :: |:     |   |:     :| : |    |: :   |  ||
Db        142 NAPENQYPTLG---QDYVVMCEVKADPNPTI----DWLRNGDPIRTTNDKYVVQT----- 189

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
                        : |:||  || | | |  :|  | |: ||  |: :|| : | : |
Db        190 --------NGLLIRNVQESDEGIYTCR-AAVIETGELLER-TIRVEVFIQPEIISLPTNL 239

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              |: |       |  : | | || :| :|  :|        : :|   : :| :|| :  ::
Db        240 EAVEGKPFAANCTAR-GKPVPEISWIRDATQL-------NVATADRFQVNPQTGLVTISS 291

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-----RMQVDDL-NISGIIAAVVVVALVISVCGLG 235
              ||: | | |:| |:|  |       |      | |: :| |::|     : :
Db        292 VSQDDYGTYTCLAKNRAGVVDQKTKLNVLVRPQIYELYNVTGARTKEIAI---------- 341

Qy        236 VCYAQRKGYFSKETSFQKSNSSSKATTMSEND 267
              | |  ||  :   :|::  :  : |   ::|
Db        342 TCRA--KGRPAPAITFRRWGTQEEYTNGQQDD 371


RESULT 5
T29757
protein UNC-89 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 03-Dec-1999
```

```
C;Accession: T29757
R;Du, Z.; Le, T.T.; Wilson, R.
submitted to the EMBL Data Library, May 1997
A;Description: The sequence of C. elegans cosmid C09D1.
A;Reference number: Z20679
A;Accession: T29757
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-6642 <DUZ>
A;Cross-references: EMBL:AF003131; PIDN:AAB54132.1; GSPDB:GN00019; CESP:unc-89
A;Experimental source: strain Bristol N2; clone C09D1
C;Genetics:
A;Gene: CESP:unc-89
A;Map position: 1
A;Introns: 17/2; 108/3; 154/2; 211/2; 265/3; 326/2; 352/3; 426/2; 454/1; 500/1; 537/1; 6
/3; 5917/1; 6027/1; 6061/3; 6153/2; 6515/1; 6552/3; 6609/1

  Query Match             12.1%;  Score 171;  DB 2;  Length 6642;
  Best Local Similarity   28.1%;  Pred. No. 0.00012;
  Matches   61;  Conservative   29;  Mismatches   75;  Indels   52;  Gaps   11;

Qy          6 GFSAPKDQQVV---TAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGDFK 62
              |  ||:  :::   |    |:||| ||  |     :::| | |: |            :
Db       3823 GRGAPEFVELLRSCTVTEKQQAILKCKV-KGEPRPKIKWTKEGKEVEM---------SAR 3872

Qy         63 NRAEMID---FNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEV 119
               |||  |     :   |||::|||:||||  | :| |    |  : : :  || :   |
Db       3873 VRAEHKDDGTLTLTFDNVTQADAGEYRCE--AENEYGSAWTEGPIIVTLEGAPKIDG-EA 3929

Qy        120 P---------------SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQST 164
              |               :: | | :         | | |   |:|:|  |  : |:  :
Db       3930 PDFLQPVKPAVVTVGETAVLEGKI--------SGKPKPSVKWYKNGEELKPSDRVKIE-- 3979

Qy        165 NSSYTMNTKTGTLQFN-TVSKL-DTGEYSCEARNSVG 199
                |  || :   | :|| |  || ||| |  |
Db       3980 ------NLDDGTQRLTVTNAKLDDMDEYRCEASNEFG 4010


RESULT 6
I38346
elastic titin - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
C;Accession: I38346
R;Labeit, S.; Kolmerer, B.
Science 270, 293-296, 1995
A;Title: Titins: giant proteins in charge of muscle ultrastructure and elasticity.
A;Reference number: A57430; MUID:96026330; PMID:7569978
A;Accession: I38346
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-7962 <RES>
A;Cross-references: EMBL:X90569; NID:g1017426; PIDN:CAA62189.1; PID:g1017427
C;Genetics:
A;Gene: GDB:TTN
A;Cross-references: GDB:127867; OMIM:188840
A;Map position: 2q31-2q31

  Query Match             11.5%;  Score 163.5;  DB 2;  Length 7962;
  Best Local Similarity   28.3%;  Pred. No. 0.00058;
  Matches   53;  Conservative   30;  Mismatches   65;  Indels   39;  Gaps    7;

Qy         23 EAILACKTPKKTVXSRLEWKKLGRSV------SFVYYQQTLQGDFKNRAEMIDFNIRIKN 76
              ::|:   |   |:   : ||| | ::      : |  ::|             : | |
Db       2666 KSIILESTYTGTLPISVTWKKDGFNITTSEKCNIVTTEKTC------------ILEILN 2712

Qy         77 VTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEV----PSSALSGTVVELR 132
               |: |||:| ||:   :| |:::          ||:   |    |    | |  |  | |:
Db       2713 STKRDAGQYSCEIE--NEAGRDV------CGALVSTLEPPYFVTELEPLEAAVGDSVSLQ 2764

Qy        133 CQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSC 192
              ||   | |    :|:|   :|   |   :  ||:          || || |:  |:|||:|
Db       2765 CQ-VAGTPEITVSWYKGDTKLRPTPEYRTYFTNN-------VATLVFNKVNINDSGEYTC 2816

Qy        193 EARNSVG 199
                :| ||:|
Db       2817 KAENSIG 2823


RESULT 7
A41228
protein-tyrosine kinase (EC 2.7.1.112) Flk-1 precursor, endothelial cell-specific recept
C;Species: Mus musculus (house mouse)
C;Date: 19-Jun-1992 #sequence_revision 19-Jun-1992 #text_change 04-Feb-2000
C;Accession: A41228; A46065; I58365; S18832; S29991
R;Matthews, W.; Jordan, C.T.; Gavin, M.; Jenkins, N.A.; Copeland, N.G.; Lemischka, I.R.
Proc. Natl. Acad. Sci. U.S.A. 88, 9026-9030, 1991
A;Title: A receptor tyrosine kinase cDNA isolated from a population of enriched primiti
A;Reference number: A41228; MUID:92020984; PMID:1717995
A;Accession: A41228
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-1367 <MAT>
A;Cross-references: GB:X59397; NID:g50976; PIDN:CAA42040.1; PID:g50977
R;Millauer, B.; Wizigmann-Voos, S.; Schnurch, H.; Martinez, R.; Moller, N.P.; Risau, W.
Cell 72, 835-846, 1993
A;Title: High affinity VEGF binding and developmental expression suggest Flk-1 as a majo
A;Reference number: A46065; MUID:93208880; PMID:7681362
A;Accession: A46065
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-24,'T',26-782,'VL',785-916,'C',918-1367 <MIL>
A;Cross-references: GB:X70842; NID:g57923; PIDN:CAA50192.1; PID:g57924
A;Note: submitted to the EMBL Data Library, January 1993
A;Note: sequence extracted from NCBI backbone (NCBIP:128064)
R;Oelrichs, R.B.; Reid, H.H.; Bernard, O.; Ziemiecki, A.; Wilks, A.F.
Oncogene 8, 11-18, 1993
A;Title: NYK/FLK-1: a putative receptor protein tyrosine kinase isolated from E10 embryo
A;Reference number: I58365; MUID:93141255; PMID:8423988
A;Accession: I58365
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-678,'D',680-1340,'RSPPV' <OEL>
A;Cross-references: GB:S53103; NID:g264004; PIDN:AAB25043.1; PID:g264005
C;Genetics:
A;Gene: FLK-1; NYK
C;Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases; protein kinase homol
C;Keywords: ATP; autophosphorylation; phosphoprotein; phosphotransferase; transmembrane
F;830-1165/Domain: protein kinase homology <KIN>
F;838-846/Region: protein kinase ATP-binding motif

  Query Match             11.3%;  Score 160.5;  DB 2;  Length 1367;
  Best Local Similarity   24.8%;  Pred. No. 0.00012;
  Matches   53;  Conservative   23;  Mismatches   75;  Indels   63;  Gaps    6;

Qy         22 QEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFN---------- 71
              ||::    |  :    | | |||   : |:  ::|    ||   :  |
Db       562 QESVSLLCTADRNTFENLTWYKLGSQATSVHMGESLTPVCKNLDALWKLNGTMFSNSTND 621

Qy         72 ---IRIKNVTRSDAGKYRC-------------------EVSAPSEQGQNLEEDTVTLEV 108
                 :  :| :  | | | |                   |  ||   | |||  | |:
Db       622 ILIVAFQNASLQDQGDYVCSAQDKKTKKRHCLVKQLIILERMAPMITG-NLENQTTTI-- 678

Qy        109 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSY 168
                            |  :|: |    ||| |  ||||   |:|:  :  :  | :
Db       679 ----------------GETIEVTC-PASGNPTPHITWFKDNETLVEDSGIVLRDGNRNL 720

Qy        169 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRR 202
              |:           | | | | |:|:| | :|  |
Db       721 TI---------RRVRKEDGGLYTCQACNVLGCAR 745


RESULT 8
A27681
nonspecific cross-reacting antigen precursor - human
N;Alternate names: NCA; TEX/NCA
```

C;Species: Homo sapiens (man)
C;Date: 31-Mar-1989 #sequence_revision 16-Sep-1992 #text_change 31-Jan-2000
C;Accession: A26902; A29875; A27681; B31037; A29918; A27709; A36271; C26414; E44476; F44
R;Oikawa, S.; Kosaki, G.; Nakazato, H.
Biochem. Biophys. Res. Commun. 146, 464-469, 1987
A;Title: Molecular cloning of a gene for a member of carcinoembryonic antigen (CEA) gene
A;Reference number: A26902; MUID:87298464; PMID:3619891
A;Accession: A26902
A;Molecule type: DNA
A;Residues: 1-141 <OIK>
A;Cross-references: GB:M17082; NID:g180230; PIDN:AAA51971.1; PID:g553222
R;Thompson, J.A.; Pande, H.; Paxton, R.J.; Shively, L.; Padma, A.; Simmer, R.L.; Todd, C
Proc. Natl. Acad. Sci. U.S.A. 84, 2965-2969, 1987
A;Title: Molecular cloning of a gene belonging to the carcinoembryonic antigen gene fami
A;Reference number: A29875; MUID:87204248; PMID:3033672
A;Accession: A29875
A;Molecule type: DNA
A;Residues: 23-141 <THO>
A;Cross-references: GB:M16337
A;Note: the authors translated the codon ACT for residue 64 as Tyr
R;Tawaragi, Y.; Oikawa, S.; Matsuoka, Y.; Kosaki, G.; Nakazato, H.
Biochem. Biophys. Res. Commun. 150, 89-96, 1988
A;Title: Primary structure of nonspecific crossreacting antigen (NCA), a member of carci
A;Reference number: A27681; MUID:88106638; PMID:3337731
A;Accession: A27681
A;Molecule type: mRNA
A;Residues: 1-238,'V',240-344 <TAW>
A;Cross-references: GB:M18728; NID:g189084; PIDN:AAA59907.1; PID:g189085
R;Barnett, T.; Goebel, S.J.; Nothdurft, M.A.; Elting, J.J.
Genomics 3, 59-66, 1988
A;Title: Carcinoembryonic antigen family: characterization of cDNAs coding for NCA and C
A;Reference number: A31037; MUID:89122014; PMID:3220478
A;Accession: B31037
A;Molecule type: mRNA
A;Residues: 1-137,'L',139-344 <BAR>
A;Cross-references: GB:M29541; NID:g189103; PIDN:AAA59915.1; PID:g189104
A;Note: the authors translated the codon TTG for residue 138 as Phe
R;Neumaier, M.; Zimmermann, W.; Shively, L.; Hinoda, Y.; Riggs, A.D.; Shively, J.E.
J. Biol. Chem. 263, 3202-3207, 1988
A;Title: Characterization of a cDNA clone for the nonspecific cross-reacting antigen (NC
A;Reference number: A29918; MUID:88139389; PMID:2830274
A;Accession: A29918
A;Molecule type: mRNA
A;Residues: 1-344 <NEU>
A;Cross-references: GB:M18216; GB:J03550; NID:g178690; PIDN:AAA51739.1; PID:g178691
R;Grunert, F.; Kolbinger, F.; Schwarz, K.; Schwaibold, H.; von Kleist, S.
Biochem. Biophys. Res. Commun. 153, 1105-1115, 1988
A;Title: Protein analysis of NCA-50 shows identity to NCA cDNA deduced sequences and ind
A;Reference number: A27709; MUID:88268882; PMID:3390172
A;Accession: A27709
A;Molecule type: protein
A;Residues: 35-95;99-120;123-138;149-151,'X',153-162;166,'X',168-172,'X',174-193;231-235
R;Hefta, S.A.; Paxton, R.J.; Shively, J.E.
J. Biol. Chem. 265, 8618-8626, 1990
A;Title: Sequence and glycosylation site identity of two distinct glycoforms of nonspeci
A;Reference number: A36271; MUID:90256782; PMID:2341397
A;Accession: A36271
A;Molecule type: protein
A;Residues: 35-42;44-53;55-80;83-134;139-160;166-172;174-180;191-194,204-224;233-308;310
R;Paxton, R.J.; Mooser, G.; Pande, H.; Lee, T.D.; Shively, J.E.
Proc. Natl. Acad. Sci. U.S.A. 84, 920-924, 1987
A;Title: Sequence analysis of carcinoembryonic antigen: identification of glycosylation
A;Reference number: A26414; MUID:87147209; PMID:3469650
A;Accession: C26414
A;Molecule type: protein
A;Residues: 35-69 <PAX>
R;Khan, W.N.; Fraengsmyr, L.; Teglund, S.; Israelsson, A.; Bremer, K.; Hammarstroem, S.
Genomics 14, 384-390, 1992
A;Title: Identification of three new genes and estimation of the size of the carcinoembr
A;Reference number: A44476; MUID:93052339; PMID:1427854
A;Accession: E44476
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 35-141 <KHA>
A;Accession: F44476
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 35-137,'L',139-141 <KH2>
C;Comment: This protein appears to be processed at the carboxyl terminus and anchored t
C;Genetics:
A;Gene: GDB:NCA
A;Cross-references: GDB:120221; OMIM:163980
A;Map position: 19q13.2-19q13.2
A;Introns: 22/1
A;Note: the list of introns may be incomplete
C;Superfamily: carcinoembryonic antigen; carcinoembryonic antigen precursor amino-termi
C;Keywords: blocked carboxyl end; glycoprotein; lipoprotein; membrane protein; phosphat
F;1-138/Domain: carcinoembryonic antigen precursor amino-terminal homology <CEAN>
F;1-34/Domain: signal sequence #status predicted <SIG>
F;35-320/Product: nonspecific cross-reacting antigen #status experimental <MAT>
F;160-217/Domain: immunoglobulin homology <IMM1>
F;252-301/Domain: immunoglobulin homology <IMM2>
F;321-344/Domain: carboxyl-terminal propeptide #status predicted <CTP>
F;104,111,115,152,173,197,224,256,274,288,292/Binding site: carbohydrate (Asn) (covalen
F;309/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;320/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Gly) (in mature for

Query Match 11.1%; Score 157; DB 2; Length 344;
Best Local Similarity 28.4%; Pred. No. 4.6e-05;
Matches 48; Conservative 25; Mismatches 62; Indels 34; Gaps 8;

```
Qy         69 DFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSA--LSG 126
              : : : :| |:||| | ||:  |:   ::   | ||| ||  |  |:   || |    |
Db        197 NMTLTLLSVKRNDAGSYECEIQNPASANRS---DPVTLNVLYGPDGPTIS-PSKANYRPG 252

Qy        127 TVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLD 186
              : | |     ||  :|:|| :|                    |    | |    ::  :
Db        253 ENLNLSCH-AASNPPAQYSWFING-----------------TFQQSTQELFIPNITVNN 293

Qy        187 TGEYSCEARNSVGYRRCPG-KRMQVDDLNISG---IIAAVVVVALVISV 231
              :| | |:| ||       |  |  |  : :||   :::||  | : | |
Db        294 SGSYMCQAHNS-----ATGLNRTTVTMITVSGSAPVLSAVATVGITIGV 337
```

RESULT 9
JC5702
ErbB kinase activator alpha2a, brain and thymus - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 25-Nov-1997 #sequence_revision 25-Nov-1997 #text_change 08-Sep-2002
C;Accession: JC5702; PC4417
R;Higashiyama, S.; Horikawa, M.; Yamada, K.; Ichino, N.; Nakano, N.; Nakagawa, T.; Miya
J. Biochem. 122, 675-680, 1997
A;Title: A novel brain-derived member of the epidermal growth factor family that intera
A;Reference number: JC5700; MUID:98006324; PMID:9348101
A;Accession: JC5702
A;Status: nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-860 <HIG>
A;Cross-references: DDBJ:D89996; NID:g2605631; PIDN:BAA23345.1; PID:g2605632
A;Experimental source: PC-12 cell
A;Accession: PC4417
A;Status: nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 'F',212-213,223-860 <HI2>
A;Cross-references: DDBJ:AB001576; NID:g2605478; PIDN:BAA23348.1; PID:g2605479
A;Experimental source: PC-12 cell
C;Comment: This protein is a member of the epidermal growth factor family. It is functi
ating the differentiation of MDA-MB-453 cells.
C;Superfamily: human ErbB kinase activator alpha, brain and thymus; EGF homology; immun
C;Keywords: glycoprotein
F;274-327/Domain: Ig-like #status predicted <IGL>
F;361-397/Domain: EGF homology <EGF>
F;422-444/Domain: hydrophobic #status predicted <HYD>
F;163,294,467/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 11.1%; Score 157; DB 2; Length 860;

```
  Best Local Similarity   27.7%;  Pred. No. 0.00014;
  Matches   56;  Conservative   24;  Mismatches   86;  Indels   36;  Gaps    8;

Qy          44 LGRSVSFVYYQQTLQGD--FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEE 101
               | |:  :::: :  :    ||     :| |   ||: : : ||  |   |   : : ::
Db         204 LERNQRYIFFLEPTEQPLVFKTAFAPVDPN--GKNI-KKEVGKILCTDCATRPKLKKMKS 260

Qy         102 DTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 161
               |  :                      |    |:|:   ||| | | |||||  |       |
Db         261 QTGEV------------------GEKQSLKCEAAAGNPQPSYRWFKDGKELNR-----S 296

Qy         162 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNI-----S 216
               :     |    |   |||| |   | ||| ||| | :|     | |: |: ::     |
Db         297 RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRG-RLHVNSVSTTLSSWS 355

Qy         217 GIIAAVVVVALVISVCGLGVCY 238
               |        |    | | ||||
Db         356 GHARKCNETAKSYCVNG-GVCY 376


RESULT 10
JC5701
ErbB kinase activator alpha1, brain and thymus - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 25-Nov-1997 #sequence_revision 25-Nov-1997 #text_change 08-Sep-2002
C;Accession: JC5701; PC4411
R;Higashiyama, S.; Horikawa, M.; Yamada, K.; Ichino, N.; Nakano, N.; Nakagawa, T.; Miyag
J. Biochem. 122, 675-680, 1997
A;Title: A novel brain-derived member of the epidermal growth factor family that interac
A;Reference number: JC5700; MUID:98006324; PMID:9348101
A;Accession: JC5701
A;Molecule type: mRNA
A;Residues: 1-868 <HIG>
A;Cross-references: DDBJ:D89995; NID:g2605629; PIDN:BAA23344.1; PID:g2605630
A;Accession: PC4411
A;Molecule type: protein
A;Residues: 128-162 <HI2>
A;Experimental source: PC-12 cell
C;Comment: This protein is a member of the epidermal growth factor family. It is functio
ating the differentiation of MDA-MB-453 cells.
C;Superfamily: human ErbB kinase activator alpha, brain and thymus; EGF homology; immunc
F;361-397/Domain: EGF homology <EGF>

  Query Match             11.1%;  Score 157;  DB 2;  Length 868;
  Best Local Similarity   27.7%;  Pred. No. 0.00014;
  Matches   56;  Conservative   24;  Mismatches   86;  Indels   36;  Gaps    8;

Qy          44 LGRSVSFVYYQQTLQGD--FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEE 101
               | |:  :::: :  :    ||     :| |   ||: : : ||  |   |   : : ::
Db         204 LERNQRYIFFLEPTEQPLVFKTAFAPVDPN--GKNI-KKEVGKILCTDCATRPKLKKMKS 260

Qy         102 DTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 161
               |  :                      |    |:|:   ||| | | |||||  |       |
Db         261 QTGEV------------------GEKQSLKCEAAAGNPQPSYRWFKDGKELNR-----S 296

Qy         162 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNI-----S 216
               :     |    |   |||| |   | ||| ||| | :|     | |: |: ::     |
Db         297 RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRG-RLHVNSVSTTLSSWS 355

Qy         217 GIIAAVVVVALVISVCGLGVCY 238
               |        |    | | ||||
Db         356 GHARKCNETAKSYCVNG-GVCY 376


RESULT 11
T23007
hypothetical protein K09C8.5 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C;Accession: T23007; T23543
R;Kershaw, J.
submitted to the EMBL Data Library, November 1995
A;Reference number: Z19651
A;Accession: T23007
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-1328 <WIL>
A;Cross-references: EMBL:Z68005; PIDN:CAA91994.1; GSPDB:GN00028; CESP:K09C8.5
A;Experimental source: clone F59F3
R;Kershaw, J.
submitted to the EMBL Data Library, November 1995
A;Reference number: Z19755
A;Accession: T23543
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-1328 <WI2>
A;Cross-references: EMBL:Z68006; PIDN:CAA91999.1; GSPDB:GN00028; CESP:K09C8.5
A;Experimental source: clone K09C8
C;Genetics:
A;Gene: CESP:K09C8.5
A;Map position: X
A;Introns: 34/1; 85/3; 133/3; 182/2; 220/3; 262/2; 390/3; 442/2; 493/3; 563/2; 586/3; 6

  Query Match             11.0%;  Score 155.5;  DB 2;  Length 1328;
  Best Local Similarity   27.5%;  Pred. No. 0.0003;
  Matches   42;  Conservative   34;  Mismatches   66;  Indels   11;  Gaps    4;

Qy          47 SVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTL 106
               :::::: :| |    |::       ::|     :| |:| |  |   |   ::   :|:|
Db         382 TITWLFEKQKLTESRKHKLTKNGSVLKIFPFLNTDIGQYECVASNGEESKSHI--FSVSL 439

Qy         107 EVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNS 166
               :  | :    : ::|  |  | |||  | | | |:  |  :|||:   ||      |:
Db         440 KESEQPVIIDAPMDTNATIGQQVTLRCNAK-GFPVPDVVWLFEGIRI---PR-----RNT 490

Qy         167 SYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVG 199
                ||::     |    |:: |:| ::|:| ||||
Db         491 RYTISDNNIELTIEKVTRHDSGVFTCQAVNSVG 523


RESULT 12
T34416
hypothetical protein F12F3.2 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 29-Oct-1999
C;Accession: T34416
R;Fulton, B.; Wohldmann, P.
submitted to the EMBL Data Library, July 1998
A;Description: The sequence of C. elegans cosmid F12F3.
A;Reference number: Z21521
A;Accession: T34416
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-2783 <FUL>
A;Cross-references: EMBL:U80022; PIDN:AAC25886.1; GSPDB:GN00023; CESP:F12F3.2
A;Experimental source: strain Bristol N2; clone F12F3
C;Genetics:
A;Gene: CESP:F12F3.2
A;Map position: 5
A;Introns: 45/3; 90/3; 451/3; 509/1; 2313/3; 2341/3; 2378/3; 2414/2; 2453/3; 2474/2; 2

  Query Match             11.0%;  Score 155.5;  DB 2;  Length 2783;
  Best Local Similarity   30.4%;  Pred. No. 0.00072;
  Matches   58;  Conservative   15;  Mismatches   77;  Indels   41;  Gaps    6;

Qy          64 RAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVP-------- 115
               | |   | :|| ||||:|||||      || |      | ||         | |
Db        2606 RNEGDKFILRIANVTRADAGKYELTAINPSGQANAELELTVVQSTKTVGAKPKFNESPIS 2665

Qy         116 --SCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRL---LENPRLGSQSTNSSYTM 170
                 :||   : |  :           | |||   || :|  |   |:   : |  ||||
Db        2666 VQTCEKNRAELRASF--------SGTPAPACRWFYNGNELIDGLDGYTITSSDTNSS--- 2714

Qy         171 NTKTGTLQFNTVSKLDTGEYSCEARNSVGYR----------RCPGKRMQVDDLNISGIIA 220
                   |  |:| |   ||| |  ||  |               |  |  ::| : :
Db        2715 ------LLINSVDKKHFGEYLCTIRNQNGEELANAMILSEGEC-RKHPRIDIVFVCNSFI 2767
```

```
Qy        221 AVVVVALVISV 231
              ||  |:||:
Db       2768 FSVVHVLLISI 2778


RESULT 13
JE0100
neural cell adhesion molecule 2 - African clawed frog
N;Alternate names: N-CAM 2
C;Species: Xenopus laevis (African clawed frog)
C;Date: 19-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
C;Accession: JE0100
R;Kudo, M.; Takayama, E.; Tadakuma, T.; Shiokawa, K.
Biochem. Biophys. Res. Commun. 245, 127-132, 1998
A;Title: Molecular cloning of ssd-form neural cell adhesion molecules (N-CAMs) as the ma
A;Reference number: JE0099; MUID:98204770; PMID:9535795
A;Accession: JE0100
A;Molecule type: mRNA
A;Residues: 1-725 <KUD>
A;Cross-references: DDBJ:AB008163; NID:g3116228; PIDN:BAA25932.1; PID:g3116229
A;Experimental source: heart
C;Comment: This protein mediates and regulates various cell-cell interactions through bo
C;Superfamily: neural cell adhesion molecule; fibronectin type III repeat homology; immu
F;413-475/Domain: immunoglobulin homology <IMM>
F;512-589/Domain: fibronectin type III repeat homology <3FR>

  Query Match             10.9%;  Score 155;  DB 2;  Length 725;
  Best Local Similarity   26.6%;  Pred. No. 0.00016;
  Matches   55;  Conservative   37;  Mismatches   99;  Indels   16;  Gaps    8;

Qy          7 FSAPKDQQV--VTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGDFKNR 64
              :: ||   |   |||   |  | |:     : | : |:   |::|    ::|| |    :
Db        300 YAKPKITYVENKTAVELDEITLTCEASGDPIPS-ITWRTAHRNIS--SEEKTLDGHIVVK 356

Qy         65 AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSAL 124
                :    : :|::  :|||:| |  | |      ::   :  ||  || :    |
Db        357 DHIRMSALTLKDIQYTDAGEYFCVASNPI----GVDMQAMYFEVQYAPKIRG-PVVVYTW 411

Qy        125 SGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSK 184
              |  | : | |   :|:   :||:|| :|| :    |  :|          :|: |  |:
Db        412 EGNPVNITC-DVLAHPSAAVSWFRDG-QLLPS----SNFSNIKIYNGPTFSSLEVNPDSE 465

Qy        185 LDTGEYSCEARNSVGYRRCPGKRMQVD 211
              | | |:| | ||:|:        :| '|
Db        466 NDFGNYNCSAVNSIGHESSEFILVQAD 492


RESULT 14
JC5700
ErbB kinase activator alpha, brain and thymus - human
C;Species: Homo sapiens (man)
C;Date: 25-Nov-1997 #sequence_revision 25-Nov-1997 #text_change 08-Sep-2002
C;Accession: JC5700
R;Higashiyama, S.; Horikawa, M.; Yamada, K.; Ichino, N.; Nakano, N.; Nakagawa, T.; Miyag
J. Biochem. 122, 675-680, 1997
A;Title: A novel brain-derived member of the epidermal growth factor family that interac
A;Reference number: JC5700; MUID:98006324; PMID:9348101
A;Accession: JC5700
A;Status: nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-850 <HIG>
A;Cross-references: DDBJ:AB005060; NID:g2626738; PIDN:BAA23417.1; PID:g2626739
A;Experimental source: SK-NSH cell
C;Comment: This protein is a member of the epidermal growth factor family. It is functio
ating the differentiation of MDA-MB-453 cells.
C;Superfamily: human ErbB kinase activator alpha, brain and thymus; EGF homology; immunc
C;Keywords: glycoprotein
F;258-311/Domain: Ig-like #status predicted <IGL>
F;345-381/Domain: EGF homology <EGF>
F;346-381/Domain: EGF-like #status predicted <EGF2>
F;147,278,451/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match             10.9%;  Score 155;  DB 2;  Length 850;
  Best Local Similarity   27.7%;  Pred. No. 0.00019;
  Matches   56;  Conservative   24;  Mismatches   86;  Indels   36;  Gaps    8;

Qy         44 LGRSVSFVYYQQTLQGD--FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEE 101
              | |:  :::: :  :    ||     :| |   ||: : : ||  |   |  : : ::
Db        188 LERNQRYIFFLEPTEQPLVFKTAFAPLDTN--GKNL-KKEVGKILCTDCATRPKLKKMKS 244

Qy        102 DTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 161
              |  :                    |    |:|:   ||| | | |||||  |       |
Db        245 QTGQV------------------GEKQSLKCEAAAGNPQPSYRWFKDGKELNR-----S 280

Qy        162 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNI-----S 216
              :     |    |   |||| |   | ||| ||| | :|     | |: |: ::      |
Db        281 RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRG-RLYVNSVSTTLSSWS 339

Qy        217 GIIAAVVVVALVISVCGLGVCY 238
              |        |   | | ||||
Db        340 GHARKCNETAKSYCVNG-GVCY 360


RESULT 15
JC1508
biliary glycoprotein D - mouse
N;Alternate names: biliary glycoprotein 1
C;Species: Mus musculus (house mouse)
C;Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 23-Jul-1999
C;Accession: JC1508; S65940; S36852
R;McCuaig, K.; Rosenberg, M.; Nedellec, P.; Turbide, C.; Beauchemin, N.
Gene 127, 173-183, 1993
A;Title: Expression of the Bgp gene and characterization of mouse colon biliary glycop
A;Reference number: JC1505; MUID:93273228; PMID:8500759
A;Accession: JC1508
A;Molecule type: mRNA
A;Residues: 1-521 <MCC>
A;Cross-references: EMBL:X67279; NID:g50170; PIDN:CAA47696.1; PID:g50171
A;Experimental source: strain CD1; tissue colon
R;Nedellec, P.; Turbide, C.; Beauchemin, N.
Eur. J. Biochem. 231, 104-114, 1995
A;Title: Characterization and transcriptional activity of the mouse biliary glycoprote
A;Reference number: S65939; MUID:95354678; PMID:7628460
A;Accession: S65940
A;Status: translation not shown
A;Molecule type: DNA
A;Residues: 1-21 <NED>
A;Cross-references: EMBL:X84054; NID:g1039337
A;Experimental source: strain BALB/c
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, July 1992
A;Note: only a part of the coding sequence is given
C;Comment: This protein is expressed at the cell surface and plays a determinant role
C;Genetics:
A;Gene: BgpD; bgp1
A;Map position: 7
C;Superfamily: carcinoembryonic antigen; carcinoembryonic antigen precursor amino-term
C;Keywords: glycoprotein; receptor; transmembrane protein
F;1-138/Domain: carcinoembryonic antigen precursor amino-terminal homology <CEAN>
F;160-219/Domain: immunoglobulin homology <IMM1>
F;254-303/Domain: immunoglobulin homology <IMM2>
F;339-396/Domain: immunoglobulin homology <IMM3>
F;71,89,104,148,199,206,210,226,258,290,294,304,317,333,375/Binding site: carbohydrate

  Query Match             10.8%;  Score 153.5;  DB 2;  Length 521;
  Best Local Similarity   21.9%;  Pred. No. 0.00014;
  Matches   70;  Conservative   37;  Mismatches   93;  Indels  119;  Gaps   14;

Qy         41 WKKLGRSVSFVYYQQTLQGDFKNRAEMIDFN--IRIKNVTRSDAGKYRCEVSAPSEQGQN 98
              | : | |:|        :||   | :: : |  : : ||||:| | | ||   |    ::
Db        180 WSRNGESLS--------EGD---RLKLSEGNRTLTLLNVTRNDTGPYVCETRNPVSVNRS 228

Qy         99 LEEDTVTLEVLVAPAVPSCEVPSSAL--SGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
                 | :| ::  | |    ||      |: : | |     ||  :| |      : |
Db        229 ---DPFSLNIIYGPDTPIIS-PSDIYLHPGSNLNLSCH-AASNPPAQYFWL-----INEK 278
```

```
Qy        157 PRLGSQ-------STNSS-----YTMNTKTG---------------------------- 175
              |   ||       :||:|     :  |: ||
Db        279 PHASSQELFIPNITTNNSGTYTCFVNNSVTGLSRTTVKNITVLEPVTQPFLQVTNTTVKE 338

Qy        176 -------------------------------------TLQFNTVSKLDTGEYSCEARN 196
                                                  |: : : : | ||| || |
Db        339 LDSVTLTCLSNDIGANIQWLFNSQSLQLTERMTLSQNNSILRIDPIKREDAGEYQCEISN 398

Qy        197 SVGYRRCPGKRMQV---------DDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYFSK 247
              |  ||    :: :          |  |:||:  : ||| |  : ||     ||   |
Db        399 PVSVRRSNSIKLDIIFDPTQGGLSDGAIAGIV--IGVVAGVALIAGLAYFLYSRK---SG 453

Qy        248 ETSFQKSNSSSKATTMSEN 266
                | |:  :  | :| : |
Db        454 GGSDQRDLTEHKPSTSNHN 472
```

Search completed: December 9, 2003, 17:13:42
Job time : 14.9443 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:08:11 ; Search time 9.13589 Seconds
(without alignments)
1420.702 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 1418
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 127863

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1415	99.8	298	1	JAM2_HUMAN	P57087 homo sapien
2	426	30.0	299	1	JAM1_HUMAN	Q9y624 homo sapien
3	414.5	29.2	298	1	JAM1_BOVIN	Q9xt56 bos taurus
4	410	28.9	300	1	JAM1_MOUSE	O88792 mus musculu
5	231	16.3	319	1	A33_HUMAN	Q99795 homo sapien
6	190.5	13.4	365	1	CXAR_HUMAN	P78310 homo sapien
7	186	13.1	873	1	FAS2_DROME	P34082 drosophila
8	180	12.7	365	1	CXAR_MOUSE	P97792 mus musculu
9	171	12.1	6632	1	UN89_CAEEL	O01761 caenorhabdi
10	164	11.6	344	1	CEA6_HUMAN	P40199 homo sapien
11	160.5	11.3	1367	1	VGR2_MOUSE	P35918 mus musculu
12	159.5	11.2	837	1	NCM2_MOUSE	O35136 mus musculu
13	157	11.1	868	1	NRG2_RAT	O35569 rattus norv
14	156	11.0	756	1	NRG2_MOUSE	P56974 mus musculu
15	155.5	11.0	837	1	NCM2_HUMAN	O15394 homo sapien
16	155	10.9	850	1	NRG2_HUMAN	O14511 homo sapien
17	153.5	10.8	521	1	CEA1_MOUSE	P31809 mus musculu
18	153.5	10.8	1343	1	VGR2_RAT	O08775 rattus norv
19	151	10.6	1092	1	NCA2_XENLA	P36335 xenopus lae
20	148.5	10.5	519	1	ECTO_RAT	P16573 rattus norv
21	148	10.4	1088	1	NCA1_XENLA	P16170 xenopus lae
22	147.5	10.4	1091	1	NCA1_CHICK	P13590 gallus gall
23	147	10.4	526	1	CEA1_HUMAN	P13688 homo sapien
24	147	10.4	1897	1	PTPF_HUMAN	P10586 homo sapien
25	146.5	10.3	761	1	NCA2_HUMAN	P13592 homo sapien
26	146.5	10.3	848	1	NCA1_HUMAN	P13591 homo sapien
27	146	10.3	1051	1	PTK7_CHICK	Q91048 gallus gall
28	145	10.2	333	1	AMAL_DROME	P15364 drosophila
29	144.5	10.2	349	1	CEA8_HUMAN	P31997 homo sapien
30	144	10.2	1302	1	NRG_DROME	P20241 drosophila
31	143	10.1	858	1	NCA1_RAT	P13596 rattus norv
32	142.5	10.0	265	1	CEA7_HUMAN	Q14002 homo sapien
33	140.5	9.9	344	1	NTRI_RAT	Q62718 rattus norv
34	140.5	9.9	847	1	CD22_HUMAN	P20273 homo sapien
35	140	9.9	359	1	LACH_DROME	Q24372 drosophila
36	140	9.9	853	1	NCA1_BOVIN	P31836 bos taurus
37	140	9.9	1906	1	KMLS_CHICK	P11799 gallus gall
38	140	9.9	4391	1	PGBM_HUMAN	P98160 homo sapien
39	139	9.8	725	1	NCA2_MOUSE	P13594 mus musculu
40	139	9.8	1115	1	NCA1_MOUSE	P13595 mus musculu
41	139	9.8	3707	1	PGBM_MOUSE	Q05793 mus musculu
42	138.5	9.8	702	1	CEA5_HUMAN	P06731 homo sapien
43	138.5	9.8	1709	1	SN_HUMAN	Q9bzz2 homo sapien
44	138	9.7	764	1	ICCR_DROME	Q08180 drosophila
45	137.5	9.7	344	1	NTRI_MOUSE	Q99pj0 mus musculu

ALIGNMENTS

RESULT 1
JAM2_HUMAN
ID JAM2_HUMAN STANDARD; PRT; 298 AA.
AC P57087;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 15-SEP-2003 (Rel. 42, Last annotation update)
DE Junctional adhesion molecule 2 precursor (Vascular endothelial
DE junction-associated molecule) (VE-JAM).
GN JAM2 OR VEJAM OR C21ORF43.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Vascular endothelial cells;
RX MEDLINE=20317114; PubMed=10779521;
RA Palmeri D., van Zante A., Huang C.C., Hemmerich S., Rosen S.D.;
RT "Vascular endothelial junction-associated molecule, a novel member of
RT the immunoglobulin superfamily, is localized to intercellular
RT boundaries of endothelial cells.";
RL J. Biol. Chem. 275:19139-19145(2000).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Placenta;
RX MEDLINE=20507930; PubMed=10945976;
RA Cunningham S.A., Arrate M.P., Rodriguez J.M., Bjercke R.J.,
RA Vanderslice P., Morris A.P., Brock T.A.;
RT "A novel protein with homology to the junctional adhesion molecule:
RT Characterization of leukocyte interactions.";
RL J. Biol. Chem. 275:34750-34756(2000).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=Lung;
RX MEDLINE=22388257; PubMed=12477932;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length
RT human and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).

```
CC   -!- FUNCTION: MAY PLAY A ROLE IN THE PROCESSES OF LYMPHOCYTE HOMING TO
CC       SECONDARY LYMPHOID ORGANS.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC   -!- TISSUE SPECIFICITY: PROMINENTLY EXPRESSED ON HIGH ENDOTHELIAL
CC       VENULES BUT IS ALSO PRESENT ON THE ENDOTHELIA OF OTHER VESSELS.
CC       LOCALIZED TO THE INTERCELLULAR BOUNDARIES OF HIGH ENDOTHELIAL
CC       CELLS.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC   -!- DATABASE: NAME=PROW; NOTE=PROW 2:1-3(2001);
CC       WWW="http://www.ncbi.nlm.nih.gov/prow/guide/1652492186_g.htm".
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   ---------------------------------------------------------------------
DR   EMBL; AF255910; AAF81223.1; -.
DR   EMBL; AY016009; AAG49022.1; -.
DR   EMBL; BC017779; AAH17779.1; -.
DR   Genew; HGNC:14686; JAM2.
DR   MIM; 606870; -.
DR   GO; GO:0005887; C:integral to plasma membrane; NAS.
DR   GO; GO:0016337; P:cell-cell adhesion; NAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain; Glycoprotein; Transmembrane; Signal.
FT   SIGNAL       1    20       POTENTIAL.
FT   CHAIN       21   298       JUNCTIONAL ADHESION MOLECULE 2.
FT   DOMAIN      21   238       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM   239   259       POTENTIAL.
FT   DOMAIN     260   298       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN      32   127       IG-LIKE V-TYPE.
FT   DOMAIN     134   238       IG-LIKE C2-TYPE.
FT   DISULFID    50   109       POTENTIAL.
FT   DISULFID   155   214       POTENTIAL.
FT   CARBOHYD    98    98       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD   187   187       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD   236   236       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   298 AA;  33207 MW;  CA78E518E22DCAEE CRC64;

  Query Match             99.8%;  Score 1415;  DB 1;  Length 298;
  Best Local Similarity   99.3%;  Pred. No. 3.8e-113;
  Matches  274;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              |||||||||||||||||| |||||||||||||| ||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVEYQEAILACKTPKKTVSSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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RESULT 2
JAM1_HUMAN
ID   JAM1_HUMAN     STANDARD;      PRT;   299 AA.
AC   Q9Y624;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Junctional adhesion molecule 1 precursor (JAM) (Platelet adhesion
DE   molecule 1) (PAM-1) (Platelet F11 receptor).
GN   F11R OR JAM1 OR JCAM.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=99323940; PubMed=10395639;
RA   Ozaki H., Ishii K., Horiuchi H., Arai H., Kawamoto T., Okawa K.,
RA   Iwamatsu A., Kita T.;
RT   "Combined treatment of TNF-alpha and IFN-gamma causes redistribution
RT   of junctional adhesion molecule in human endothelial cells.";
RL   J. Immunol. 163:553-557(1999).
RN   [2]
RP   SEQUENCE FROM N.A.
RA   Sobocka M.B., Sobocki T., Rushbrook J.I., Banerjee P., Weiss C.,
RA   Kornecki E.;
RT   "Molecular cloning and sequencing of the cDNA of F11 receptor, a
RT   novel Ig superfamily member from human platelets.";
RL   Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A.
RA   Naik U.P., Naik M.U., DeLeon P., Spychala J.;
RT   "Cloning and characterization of PAM-1, a novel platelet adhesion
RT   molecule involved in platelet activation.";
RL   Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=21154917; PubMed=11230166;
RA   Wiemann S., Weil B., Wellenreuther R., Gassenhuber J., Glassl S.,
RA   Ansorge W., Boecher M., Bloecker H., Bauersachs S., Blum H.,
RA   Lauber J., Duesterhoeft A., Beyer A., Koehrer K., Strack N.,
RA   Mewes H.-W., Ottenwaelder B., Obermaier B., Tampe J., Heubner D.,
RA   Wambutt R., Korn B., Klein M., Poustka A.;
RT   "Towards a catalog of human genes and proteins: sequencing and
RT   analysis of 500 novel complete protein coding human cDNAs.";
RL   Genome Res. 11:422-435(2001).
CC   -!- FUNCTION: Seems to plays a role in epithelial tight junction
CC       formation. Appears early in primordial forms of cell junctions and
CC       recruits PARD3. The association of the PARD6-PARD3 complex may
CC       prevent the interaction of PARD3 with JAM1, thereby preventing
CC       tight junction assembly (By similarity). Plays a role in
CC       regulating monocyte transmigration involved in integrity of
CC       epithelial barrier. Involved in platelet activation.
CC   -!- SUBUNIT: Interacts with the first PDZ domain of PARD3. The
CC       association between PARD3 and PARD6B probably disrupts this
CC       interaction (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC   -!- TISSUE SPECIFICITY: Localized at tight junctions of both
CC       epithelial and endothelial cells.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like V-type domains.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF111713; AAD42050.1; -.
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DR   EMBL; AF207907; AAF22829.1; -.
DR   EMBL; AF172398; AAD48877.1; -.
DR   EMBL; AL136649; CAB66584.1; -.
DR   PIR; A59406; S56749.
DR   Genew; HGNC:14685; F11R.
DR   MIM; 605721; -.
DR   GO; GO:0006954; P:inflammatory response; TAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Tight junction; Immunoglobulin domain; Glycoprotein; Transmembrane;
KW   Repeat; Signal.
FT   SIGNAL       1     25       POTENTIAL.
FT   CHAIN       26    299       JUNCTIONAL ADHESION MOLECULE 1.
FT   DOMAIN      26    238       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM   239    259       POTENTIAL.
FT   DOMAIN     260    299       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN      27    125       IG-LIKE V-TYPE 1.
FT   DOMAIN     135    228       IG-LIKE V-TYPE 2.
FT   DISULFID    50    109       POTENTIAL.
FT   DISULFID   153    212       POTENTIAL.
FT   CARBOHYD   185    185       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   299 AA;  32583 MW;  D95DE2FEA23D2851 CRC64;

  Query Match             30.0%;  Score 426;  DB 1;  Length 299;
  Best Local Similarity   35.6%;  Pred. No. 4.7e-29;
  Matches  100;  Conservative   42;  Mismatches   99;  Indels   40;  Gaps    7;

Qy          4 AY-GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDF 61
              || |||:|                              |:|||   | :   | |   :   :
Db         51 AYSGFSSP--------------------------RVEWKFDQGDTTRLVCYNNKITASY 83

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
              ::|   :   |  |:||| | | | | ||   | | :  |  | | ||| |: |:  :||
Db         84 EDRVTFLPTGITFKSVTREDTGTYTCMVS--EEGGNSYGEVKVKLIVLVPPSKPTVNIPS 141

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              || |    | | :::|:|  |||||||| :  ||:     :|||| :|  || | |:
Db        142 SATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDP 201

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              :|  |||||||||||  |        ||:  : |:  |:|||:|  ::: :   |: :|
Db        202 LSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVTLILLGILVFGIWFAY 261

Qy        241 RKGYFSKETSFQKSNSSSKA-----TTMSENDFKHTKSFII 276
              :|:| :    :|  || |      :  || :|| | ||::
Db        262 SRGHFDRT---KKGTSSKKVIYSQPSARSEGEFKQTSSFLV 299


RESULT 3
JAM1_BOVIN
ID   JAM1_BOVIN     STANDARD;      PRT;   298 AA.
AC   Q9XT56;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Junctional adhesion molecule 1 precursor (JAM).
GN   F11R OR JAM1.
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=99323940; PubMed=10395639;
RA   Ozaki H., Ishii K., Horiuchi H., Arai H., Kawamoto T., Okawa K.,
RA   Iwamatsu A., Kita T.;
RT   "Combined treatment of TNF-alpha and IFN-gamma causes redistribution
RT   of junctional adhesion molecule in human endothelial cells.";
RL   J. Immunol. 163:553-557(1999).
CC   -!- FUNCTION: Seems to plays a role in epithelial tight junction
CC       formation. Appears early in primordial forms of cell junctions and
CC       recruits PARD3. The association of the PARD6-PARD3 complex may
CC       prevent the interaction of PARD3 with JAM1, thereby preventing
CC       tight junction assembly (By similarity). Plays a role in
CC       regulating monocyte transmigration involved in integrity of
CC       epithelial barrier. Involved in platelet activation.
CC   -!- SUBUNIT: Interacts with the first PDZ domain of PARD3. The
CC       association between PARD3 and PARD6B probably disrupts this
CC       interaction (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC   -!- TISSUE SPECIFICITY: Localized at tight junctions of both
CC       epithelial and endothelial cells.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like V-type domains.
CC   ---------------------------------------------------------------------
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CC   use by non-profit institutions as long as its content is in no way
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CC   ---------------------------------------------------------------------
DR   EMBL; AF111714; AAD42051.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Tight junction; Immunoglobulin domain; Glycoprotein; Transmembrane;
KW   Repeat; Signal.
FT   SIGNAL       1     24       POTENTIAL.
FT   CHAIN       25    298       JUNCTIONAL ADHESION MOLECULE 1.
FT   DOMAIN      25    237       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM   238    258       POTENTIAL.
FT   DOMAIN     259    298       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN      28    124       IG-LIKE V-TYPE 1.
FT   DOMAIN     134    227       IG-LIKE V-TYPE 2.
FT   DISULFID    49    108       POTENTIAL.
FT   DISULFID   152    211       POTENTIAL.
FT   CARBOHYD   184    184       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   298 AA;  32456 MW;  714FE1C1714769A2 CRC64;

  Query Match             29.2%;  Score 414.5;  DB 1;  Length 298;
  Best Local Similarity   35.3%;  Pred. No. 4.5e-28;
  Matches   98;  Conservative   41;  Mismatches  100;  Indels   39;  Gaps    7;

Qy          6 GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWK-KLGRSVSFVYYQQTLQGDFKNR 64
              |||:|                              |:|||   |     | |   :   ::||
Db         53 GFSSP--------------------------RVEWKFTHGDIRGLVCYNNKITASYENR 85

Qy         65 AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSAL 124
                 |  |   :||| | | | | ||   | |    | || | ||| |: |:  ||||
Db         86 VTFSDTGITFHSVTRKDTGMYTCMVS--DEGGNTYGEVTVQLIVLVPPSKPTINVPSSVT 143

Qy        125 SGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSK 184
              ||   | | :::|:|  || |||||: :   |:     :|||||:| ||| | |: ||
Db        144 IGTRAVLTCSERDGSPPSEYKWFKDGVEMPLEPKSNRAFSNSSYTLNQKTGELIFDPVSA 203

Qy        185 LDTGEYSCEARNSVGYRRCPGK----RMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              |||:::|:|:|  ||   | |      |   :||: ||:||| |  :::     |: :|
Db        204 SDTGDFTCQAQN--GY-ASPVKSDTVHMDAVELNVGGIVAAVFVTLILLGALIFGIWFAY 260

Qy        241 RKGYF--SKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              :|||  :|: :  |     |:    |: :|: | ||::
Db        261 SRGYFDRAKKGTSNKKVIYSQPNARSDGEFRQTSSFLV 298


RESULT 4
JAM1_MOUSE
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ID   JAM1_MOUSE     STANDARD;      PRT;   300 AA.
AC   O88792;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Junctional adhesion molecule 1 precursor (JAM).
GN   F11R OR JAM1 OR JCAM1 OR JCAM.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98327120; PubMed=9660867;
RA   Martin-Padura I., Lostaglio S., Schneemann M., Williams L., Romano M.,
RA   Fruscella P., Panzeri C., Stoppacciaro A., Ruco L., Villa A.,
RA   Simmons D., Dejana E.;
RT   "Junctional adhesion molecule, a novel member of the immunoglobulin
RT   superfamily that distributes at intercellular junctions and modulates
RT   monocyte transmigration.";
RL   J. Cell Biol. 142:117-127(1998).
RN   [2]
RP   INTERACTION WITH PARD3.
RX   PubMed=11447115;
RA   Ebnet K., Suzuki A., Horikoshi Y., Hirose T.,
RA   Meyer zu Brickwedde M.-K., Ohno S., Vestweber D.;
RT   "The cell polarity protein ASIP/PAR-3 directly associates with
RT   junctional adhesion molecule (JAM).";
RL   EMBO J. 20:3738-3748(2001).
RN   [3]
RP   X-RAY CRYSTALLOGRAPHY (2.5 ANGSTROMS) OF 212-238.
RX   PubMed=11500366;
RA   Kostrewa D., Brockhaus M., D'Arcy A., Dale G.E., Nelboeck P.,
RA   Schmid G., Mueller F., Bazzoni G., Dejana E., Bartfai T.,
RA   Winkler F.K., Hennig M.;
RT   "X-ray structure of junctional adhesion molecule: structural basis for
RT   homophilic adhesion via a novel dimerization motif.";
RL   EMBO J. 20:4391-4398(2001).
CC   -!- FUNCTION: Seems to plays a role in epithelial tight junction
CC       formation. Appears early in primordial forms of cell junctions and
CC       recruits PARD3. The association of the PARD6-PARD3 complex may
CC       prevent the interaction of PARD3 with JAM1, thereby preventing
CC       tight junction assembly. Plays a role in regulating monocyte
CC       transmigration involved in integrity of epithelial barrier.
CC       Involved in platelet activation.
CC   -!- SUBUNIT: Interacts with the first PDZ domain of PARD3. The
CC       association between PARD3 and PARD6B probably disrupts this
CC       interaction.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC       Localized at tight junctions of both epithelial and endothelial
CC       cells.
CC   -!- TISSUE SPECIFICITY: Localized at tight junctions of both
CC       epithelial and endothelial cells.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like V-type domains.
CC   ---------------------------------------------------------------------
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U89915; AAC32982.1; -.
DR   PDB; 1F97; 22-AUG-01.
DR   MGD; MGI:1321398; F11r.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Tight junction; Immunoglobulin domain; Glycoprotein; Transmembrane;
KW   Repeat; Signal; 3D-structure.
FT   SIGNAL        1     26       POTENTIAL.
FT   CHAIN        27    300       JUNCTIONAL ADHESION MOLECULE 1.
FT   DOMAIN       27    238       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    239    259       POTENTIAL.
FT   DOMAIN      260    299       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       28    122       IG-LIKE V-TYPE 1.
FT   DOMAIN      134    230       IG-LIKE V-TYPE 2.
FT   DISULFID     49    108       POTENTIAL.
FT   DISULFID    152    212       POTENTIAL.
FT   CARBOHYD     42     42       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    185    185       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   300 AA;  32368 MW;  391F3E48FF3B97EC CRC64;

  Query Match             28.9%;  Score 410;  DB 1;  Length 300;
  Best Local Similarity   35.9%;  Pred. No. 1.1e-27;
  Matches   99;  Conservative   49;  Mismatches  116;  Indels   12;  Gaps    6;

Qy          7 FSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRA 65
              ::|  | ||       |:|    |       |:||| : | : : | |   :   : :|
Db         31 YTAQSDVQVPE----NESIKLTCTYSGFSSPRVEWKFVQGSTTALVCYNSQITAPYADRV 86

Qy         66 EMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALS 125
                |   :||| | |:| | ||    | |||  | :: | ||| |: |:  ||||
Db         87 TFSSSGITFSSVTRKDNGEYTCMVS--EEGGQNYGEVSIHLTVLVPPSKPTISVPSSVTI 144

Qy        126 GTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQS-TNSSYTMNTKTGTLQFNTVSK 184
              |    | | : :|:|  ||:|||||| :|      :::  |||:|:: |:| | |: |:
Db        145 GNRAVLTCSEHDGSPPSEYSWFKDGISMLTADAKKTRAFMNSSFTIDPKSGDLIFDPVTA 204

Qy        185 LDTGEYSCEARNSVG-YRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKG 243
               |:||| |:|:|  |   |    |   :||: ||:|||:|  ::: :   || :|  :|
Db        205 FDSGEYYCQAQNGYGTAMRSEAAHMDAVELNVGGIVAAVLVTLILLGLLIFGVWFAYSRG 264

Qy        244 YF---SKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||    | |:  |    |: :| || :|| | ||::
Db        265 YFETTKKGTAPGKKVIYSQPSTRSEGEFKQTSSFLV 300


RESULT 5
A33_HUMAN
ID   A33_HUMAN      STANDARD;      PRT;   319 AA.
AC   Q99795;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Cell surface A33 antigen precursor (Glycoprotein A33).
GN   GPA33.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RC   TISSUE=Colon carcinoma;
RX   MEDLINE=97165045; PubMed=9012807;
RA   Heath J.K., White S.J., Johnstone C.N., Catimel B., Simpson R.J.,
RA   Moritz R.L., Tu G.-F., Ji H., Whitehead R.H., Groenen L.C.,
RA   Scott A.M., Ritter G., Cohen L., Welt S., Old L.J., Nice E.C.,
RA   Burgess A.W.;
RT   "The human A33 antigen is a transmembrane glycoprotein and a novel
RT   member of the immunoglobulin superfamily.";
RL   Proc. Natl. Acad. Sci. U.S.A. 94:469-474(1997).
RN   [2]
RP   POST-TRANSLATIONAL MODIFICATIONS.
RX   MEDLINE=97396159; PubMed=9245713;
RA   Ritter G., Cohen L.S., Nice E.C., Catimel B., Burgess A.W.,
RA   Moritz R.L., Ji H., Heath J.K., White S.J., Welt S., Old L.J.,
RA   Simpson R.J.;
RT   "Characterization of posttranslational modifications of human A33
RT   antigen, a novel palmitoylated surface glycoprotein of human
RT   gastrointestinal epithelium.";
```

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RL   Biochem. Biophys. Res. Commun. 236:682-686(1997).
CC   -!- FUNCTION: MAY PLAY A ROLE IN CELL-CELL RECOGNITION AND SIGNALING.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- TISSUE SPECIFICITY: EXPRESSED IN NORMAL GASTROINTESTINAL
CC       EPITHELIUM AND IN 95% OF COLON CANCERS.
CC   -!- PTM: N-GLYCOSYLATED, CONTAINS APPROXIMATELY 8 KDA OF N-LINKED
CC       CARBOHYDRATE.
CC   -!- PTM: PALMITOYLATED.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U79725; AAC50957.1; -.
DR   Genew; HGNC:4445; GPA33.
DR   MIM; 602171; -.
DR   GO; GO:0005888; C:proteoglycan integral to plasma membrane; TAS.
DR   GO; GO:0004872; F:receptor activity; TAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain; Lipoprotein; Palmitate; Glycoprotein;
KW   Transmembrane; Signal; Antigen.
FT   SIGNAL        1     21
FT   CHAIN        22    319       CELL SURFACE A33 ANTIGEN.
FT   DOMAIN       22    235       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    236    256       POTENTIAL.
FT   DOMAIN      257    319       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       22    134       IG-LIKE V-TYPE.
FT   DOMAIN      140    227       IG-LIKE C2-TYPE.
FT   DOMAIN      258    261       POLY-CYS.
FT   DISULFID     43    117       POTENTIAL.
FT   DISULFID    146    222       POTENTIAL.
FT   DISULFID    162    211       POTENTIAL.
FT   CARBOHYD    112    112       N-LINKED (GLCNAC. . .).
FT   CARBOHYD    200    200       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    223    223       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   319 AA;  35632 MW;  9BFC7AAF45C2408E CRC64;

  Query Match             16.3%;  Score 231;  DB 1;  Length 319;
  Best Local Similarity   28.6%;  Pred. No. 2e-12;
  Matches   72;  Conservative   41;  Mismatches   97;  Indels   42;  Gaps   11;

Qy          8 SAPKDQQVVTAVXYQEAILACKTPKKTVXSR---LEWKKL-----GRSVSFVYYQQT-LQ 58
              |     | |: |    :    | | |    :  ||   ::| ||       | | : :  :  :
Db         23 SVETPQDVLRASQGKSVTLPC-TYHTSTSSREGLIQWDKLLLTHTERVVIWPFSNKNYIH 81

Qy         59 GD-FKNR------AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDT---VTLEV 108
              |: :|||      ||  | :| |  :| :| | | | ||  |:    || :|   | | |
Db         82 GELYKNRVSISNNAEQSDASITIDQLTMADNGTYECSVSLMSD----LEGNTKSRVRLLV 137

Qy        109 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSY 168
              || |: | | :    : |  ::| || |||:| |:|:| :   |   | |     |
Db        138 LVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNILNQEQPLAQPASGQPVS 197

Qy        169 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCP-GKRMQVDDLNIS-------GIIA 220
                | | |          :| | | : |  | : |     ::   :|::       |::|
Db        198 LKNISTDT----------SGYYICTSSNEEGTQFCNITVAVRSPSMNVALYVGIAVGVVA 247

Qy        221 AVVVVALVISVC 232
              |:::: ::|  |
Db        248 ALIIIGIIIYCC 259
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RESULT 6
CXAR_HUMAN
ID   CXAR_HUMAN     STANDARD;      PRT;   365 AA.
AC   P78310; O00694;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Coxsackievirus and adenovirus receptor precursor (Coxsackievirus B-
DE   adenovirus receptor) (hCAR) (CVB3 binding protein).
GN   CXADR OR CAR.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97190109; PubMed=9036860;
RA   Bergelson J.M., Cunningham J.A., Droguett G., Kurt-Jones E.,
RA   Krithivas A., Hong J.S., Horwitz M.S., Crowell R.L., Finberg R.W.;
RT   "Isolation of a common receptor for Coxsackie B viruses and
RT   adenoviruses 2 and 5.";
RL   Science 275:1320-1323(1997).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97250541; PubMed=9096397;
RA   Tomko R.P., Xu R., Philipson L.;
RT   "HCAR and MCAR: the human and mouse cellular receptors for subgroup C
RT   adenoviruses and group B coxsackieviruses.";
RL   Proc. Natl. Acad. Sci. U.S.A. 94:3352-3356(1997).
RN   [3]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=20008750; PubMed=10543405;
RA   Bowles K.R., Gibson J., Wu J., Shaffer L.G., Towbin J.A.,
RA   Bowles N.E.;
RT   "Genomic organization and chromosomal localization of the human
RT   Coxsackievirus B-adenovirus receptor gene.";
RL   Hum. Genet. 105:354-359(1999).
RN   [4]
RP   SEQUENCE FROM N.A.
RA   Anderson C.W., Kieleczawa J., Dunn J.J., Freimuth P.;
RT   "Sequence and expression of CXADR, the human gene for the
RT   coxsackievirus and adenovirus receptor.";
RL   Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
RN   [5]
RP   SEQUENCE FROM N.A.
RA   Andersson B., Tomko R., Andersson K., Darban H., Oncu D., Mizra M.,
RA   Sollerbrant K., Sonnhammer E., Philipson L.;
RT   "Putative regulatory domains in the human and mouse CAR genes.";
RL   Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
RN   [6]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Cervix;
RX   MEDLINE=22388257; PubMed=12477932;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
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CC   -!- FUNCTION: SERVES AS A RECEPTOR FOR GROUP B COXSACKIEVIRUSES AND
CC       SUBGROUP C OF ADENOVIRUSES (AD2 AND AD5).
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like C2-type domains.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; Y07593; CAA68868.1; -.
DR   EMBL; U90716; AAC51234.1; -.
DR   EMBL; AF169366; AAF05908.1; -.
DR   EMBL; AF169360; AAF05908.1; JOINED.
DR   EMBL; AF169361; AAF05908.1; JOINED.
DR   EMBL; AF169362; AAF05908.1; JOINED.
DR   EMBL; AF169363; AAF05908.1; JOINED.
DR   EMBL; AF169364; AAF05908.1; JOINED.
DR   EMBL; AF169365; AAF05908.1; JOINED.
DR   EMBL; AF200465; AAF24344.1; -.
DR   EMBL; AF242865; AAG01088.1; -.
DR   EMBL; AF242862; AAG01088.1; JOINED.
DR   EMBL; AF242864; AAG01088.1; JOINED.
DR   EMBL; BC003684; AAH03684.1; -.
DR   EMBL; BC010536; AAH10536.1; -.
DR   PDB; 1EAJ; 13-JUL-01.
DR   PDB; 1F5W; 08-NOV-00.
DR   PDB; 1KAC; 24-NOV-99.
DR   Genew; HGNC:2559; CXADR.
DR   MIM; 602621; -.
DR   GO; GO:0005887; C:integral to plasma membrane; TAS.
DR   GO; GO:0004872; F:receptor activity; TAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain; Receptor; Transmembrane; Glycoprotein; Signal;
KW   Repeat; 3D-structure.
FT   SIGNAL        1     19       POTENTIAL.
FT   CHAIN        20    365       COXSACKIEVIRUS AND ADENOVIRUS RECEPTOR.
FT   DOMAIN       20    237       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    238    258       POTENTIAL.
FT   DOMAIN      259    365       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       20    134       IG-LIKE C2-TYPE 1.
FT   DOMAIN      141    228       IG-LIKE C2-TYPE 2.
FT   DISULFID     41    120       BY SIMILARITY.
FT   DISULFID    162    212       BY SIMILARITY.
FT   CARBOHYD    106    106       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    201    201       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   365 AA;  40029 MW;  AB01C6346CB7FE64 CRC64;

  Query Match             13.4%;  Score 190.5;  DB 1;  Length 365;
  Best Local Similarity   23.5%;  Pred. No. 6.4e-09;
  Matches   64;  Conservative   52;  Mismatches  117;  Indels   39;  Gaps    8;

Qy          4 AYGFSAPKDQQVVTAVXYQEAILACK---TPKKTVXSRLEW-------KKLGRSVSFVYY 53
              |   |    ::::     : | | ||   :|:      :||       :|: : |  :|
Db         17 ARSLSITTPEEMIEKAKGETAYLPCKFTLSPEDQGPLDIEWLISPADNQKVDQ-VIILYS 75

Qy         54 QQTLQGDF-----------KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEED 102
                :  |:             |  :  | :| : |:  || | |:|:|    ::   :
Db         76 GDKIYDDYYPDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKV----KKAPGVANK 131

Qy        103 TVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQ 162
               : | ||| |:   | |  |   |:  :::|: |||:   :| | |             ||
Db        132 KIHLVVLVKPSGARCYVDGSEEIGSDFKIKCEPKEGSLPLQYEWQK---------LSDSQ 182

Qy        163 STNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIA-A 221
                :|:     :  :     |   :| |||  || ||  :|  :   |   | :|:|| |
Db        183 KMPTSWLAEMTSSVISVKNASSEYSGTYSCTVRNRVGSDQCLLRLNVVPPSNKAGLIAGA 242

Qy        222 VVVVALVISVCGLGVCYAQRKGYFSKETSFQK 253
                ::   | ::: || :   ::|    :|  ::|
Db        243 IIGTLLALALIGLIIFCCRKK---RREEKYEK 271


RESULT 7
FAS2_DROME
ID   FAS2_DROME     STANDARD;      PRT;   873 AA.
AC   P34082; P34083; Q9W4M6;
DT   01-FEB-1994 (Rel. 28, Created)
DT   01-FEB-1994 (Rel. 28, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Fasciclin II precursor (FAS II).
GN   FAS2 OR EG:EG0007.3 OR CG3665.
OS   Drosophila melanogaster (Fruit fly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC   Ephydroidea; Drosophilidae; Drosophila.
OX   NCBI_TaxID=7227;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS 1 AND 2), FUNCTION, SUBCELLULAR LOCATION,
RP   AND TISSUE SPECIFICITY.
RC   STRAIN=Canton-S;
RX   MEDLINE=92005695; PubMed=1913818;
RA   Grenningloh G., Rehm E.J., Goodman C.S.;
RT   "Genetic analysis of growth cone guidance in Drosophila: fasciclin II
RT   functions as a neuronal recognition molecule.";
RL   Cell 67:45-57(1991).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Berkeley;
RX   MEDLINE=20196006; PubMed=10731132;
RA   Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA   Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA   George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA   Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA   Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA   Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA   Abril J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,
RA   Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA   Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA   Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
RA   Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA   Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA   de Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA   Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA   Durbin K.J., Evangelista C.C., Ferraz C., Ferriera S., Fleischmann W.,
RA   Fosler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA   Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA   Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA   Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,
RA   Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,
RA   Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA   Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,
RA   Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,
RA   Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA   Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA   Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA   Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
RA   Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
RA   Shue B.C., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T.,
RA   Spier E., Spradling A.C., Stapleton M., Strong R., Sun E.,
RA   Svirskas R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
RA   Wang Z.-Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,
RA   Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA   Ye J., Yeh R.-F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zheng L.,
RA   Zheng X.H., Zhong F.N., Zhong W., Zhou X., Zhu S., Zhu X., Smith H.O.,
RA   Gibbs R.A., Myers E.W., Rubin G.M., Venter J.C.;
RT   "The genome sequence of Drosophila melanogaster.";
RL   Science 287:2185-2195(2000).
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RN   [3]
RP   REVISIONS, AND ALTERNATIVE SPLICING.
RC   STRAIN=Berkeley;
RX   MEDLINE=22426069; PubMed=12537572;
RA   Misra S., Crosby M.A., Mungall C.J., Matthews B.B., Campbell K.S.,
RA   Hradecky P., Huang Y., Kaminker J.S., Millburn G.H., Prochnik S.E.,
RA   Smith C.D., Tupy J.L., Whitfield E.J., Bayraktaroglu L., Berman B.P.,
RA   Bettencourt B.R., Celniker S.E., de Grey A.D.N.J., Drysdale R.A.,
RA   Harris N.L., Richter J., Russo S., Schroeder A.J., Shu S.Q.,
RA   Stapleton M., Yamada C., Ashburner M., Gelbart W.M., Rubin G.M.,
RA   Lewis S.E.;
RT   "Annotation of the Drosophila melanogaster euchromatic genome: a
RT   systematic review.";
RL   Genome Biol. 3:RESEARCH0083.1-RESEARCH0083.22(2002).
RN   [4]
RP   SEQUENCE OF 22-873 FROM N.A.
RC   STRAIN=Oregon-R;
RX   MEDLINE=20196011; PubMed=10731137;
RA   Benos P.V., Gatt M.K., Ashburner M., Murphy L., Harris D.,
RA   Barrell B.G., Ferraz C., Vidal S., Brun C., Demailles J., Cadieu E.,
RA   Dreano S., Gloux S., Lelaure V., Mottier S., Galibert F., Borkova D.,
RA   Minana B., Kafatos F.C., Louis C., Siden-Kiamos I., Bolshakov S.,
RA   Papagiannakis G., Spanos L., Cox S., Madueno E., de Pablos B.,
RA   Modolell J., Peter A., Schoettler P., Werner M., Mourkioti F.,
RA   Beinert N., Dowe G., Schaefer U., Jaeckle H., Bucheton A.,
RA   Callister D.M., Campbell L.A., Darlamitsou A., Henderson N.S.,
RA   McMillan P.J., Salles C., Tait E.A., Valenti P., Saunders R.D.C.,
RA   Glover D.M.;
RT   "From sequence to chromosome: the tip of the X chromosome of D.
RT   melanogaster.";
RL   Science 287:2220-2222(2000).
CC   -!- FUNCTION: Neuronal recognition molecule for the MP1 axon pathway,
CC       pathway recognition for axons during the development of nerve
CC       fascicles.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein (isoform 1);
CC       attached to the membrane by a GPI-anchor (isoform 2).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=3;
CC         Comment=Experimental confirmation may be lacking for some
CC         isoforms;
CC       Name=1; Synonyms=A, Membrane-linked;
CC         IsoId=P34082-1; Sequence=Displayed;
CC       Name=2; Synonyms=C, Phosphatidylinositol-linked;
CC         IsoId=P34082-2; Sequence=VSP_002508, VSP_002509;
CC       Name=3; Synonyms=B;
CC         IsoId=P34082-3; Sequence=VSP_002506, VSP_002507;
CC   -!- TISSUE SPECIFICITY: In embryos, both isoforms are initially
CC       expressed on the surface of the axons in the MP1 pathway and later
CC       on several other longitudinal axon fascicles.
CC   -!- SIMILARITY: Contains 5 immunoglobulin-like C2-type domains.
CC   -!- SIMILARITY: Contains 2 fibronectin type III domains.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; M77165; AAA28527.1; -.
DR   EMBL; M77166; AAA28528.1; -.
DR   EMBL; AL033125; CAA21825.1; -.
DR   EMBL; AE003430; AAF45925.2; -.
DR   EMBL; AE003430; AAN09119.1; -.
DR   EMBL; AL033125; CAA21826.1; -.
DR   PIR; A41054; A41054.
DR   FlyBase; FBgn0000635; Fas2.
DR   GO; GO:0005886; C:plasma membrane; IDA.
DR   GO; GO:0007156; P:homophilic cell adhesion; IDA.
DR   GO; GO:0007611; P:learning and/or memory; IMP.
DR   GO; GO:0016319; P:mushroom body development; IMP.
DR   GO; GO:0008038; P:neuronal cell recognition; IDA.
DR   GO; GO:0045473; P:response to ethanol (sensu Insecta); NAS.
DR   InterPro; IPR003961; FN_III.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00041; fn3; 2.
DR   Pfam; PF00047; ig; 5.
DR   SMART; SM00060; FN3; 2.
DR   SMART; SM00408; IGc2; 3.
DR   PROSITE; PS50835; IG_LIKE; 5.
KW   Cell adhesion; Glycoprotein; Repeat; Alternative splicing;
KW   Immunoglobulin domain; Transmembrane; GPI-anchor; Signal;
KW   Neurogenesis.
FT   SIGNAL        1     28       POTENTIAL.
FT   CHAIN        29    873       FASCICLIN II.
FT   DOMAIN       29    751       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    752    769       POTENTIAL.
FT   DOMAIN      770    873       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       31    131       IG-LIKE C2-TYPE 1.
FT   DOMAIN      138    223       IG-LIKE C2-TYPE 2.
FT   DOMAIN      230    318       IG-LIKE C2-TYPE 3.
FT   DOMAIN      323    423       IG-LIKE C2-TYPE 4.
FT   DOMAIN      428    520       IG-LIKE C2-TYPE 5.
FT   DOMAIN      544    619       FIBRONECTIN TYPE-III 1.
FT   DOMAIN      648    705       FIBRONECTIN TYPE-III 2.
FT   DISULFID     54    116       POTENTIAL.
FT   DISULFID    159    207       POTENTIAL.
FT   DISULFID    251    302       POTENTIAL.
FT   DISULFID    343    407       POTENTIAL.
FT   DISULFID    451    504       POTENTIAL.
FT   CARBOHYD     74     74       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    250    250       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    330    330       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    448    448       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    458    458       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    576    576       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARSPLIC    737    773       GIDVIQVAERQVFSSAAIVGIAIGGVLLLLFVVDLLC ->
FT                                DNPHPSTSGAAPLAQLLVIFTALPTMLLILPPTTHTA (in
FT                                isoform 3).
FT                                /FTId=VSP_002506.
FT   VARSPLIC    774    873       Missing (in isoform 3).
FT                                /FTId=VSP_002507.
FT   VARSPLIC    738    811       IDVIQVAERQVFSSAAIVGIAIGGVLLLLFVVDLLCCITVH
FT                                MGVMATMCRKAKRSPSEIDDEAKLGSGQLVKEP -> ESDS
FT                                ANNNLGTLLYSAGFNSGVGALHKRLFTTTTTTTATSTTTIT
FT                                SITTATTTIITLATTISITLLSVLASMLA (in isoform
FT                                2).
FT                                /FTId=VSP_002508.
FT   VARSPLIC    812    873       Missing (in isoform 2).
FT                                /FTId=VSP_002509.
FT   CONFLICT    804    804       S -> R (IN REF. 4; CAA21826).
SQ   SEQUENCE   873 AA;  96926 MW;  E48F0484CCE62AC9 CRC64;

  Query Match           13.1%;  Score 186;  DB 1;  Length 873;
  Best Local Similarity 24.6%;  Pred. No. 4.5e-08;
  Matches   67;  Conservative   50;  Mismatches  101;  Indels   54;  Gaps   13;

Qy          8 SAPKDQQVVTAVXYQEAILACKT---PKKTVXSRLEWKKLG---RSVSFVYYQQTLQGDF 61
              :||::|        |: :: |:    |  |:    :| : |   |: :  |  ||
Db        142 NAPENQYPTLG---QDYVVMCEVKADPNPTI----DWLRNGDPIRTTNDKYVVQT----- 189

Qy         62 KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPS 121
                 : |:||  || | | |  :|  | |: ||  |: :|| : | : |
Db        190 --------NGLLIRNVQESDEGIYTCR-AAVIETGELLER-TIRVEVFIQPEIISLPTNL 239

Qy        122 SALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNT 181
              |: |      | : | | || :| :|  :|       : :|   : :| :|| :  ::
Db        240 EAVEGKPFAANCTAR-GKPVPEISWIRDATQL-------NVATADRFQVNPQTGLVTISS 291

Qy        182 VSKLDTGEYSCEARNSVGYRRCPGK-----RMQVDDL-NISGIIAAVVVVALVISVCGLG 235
              ||: | | |:| |:|  |      |     | |: :| |::|     : :
Db        292 VSQDDYGTYTCLAKNRAGVVDQKTKLNVLVRPQIYELYNVTGARTKEIAI---------- 341
```

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Qy        236 VCYAQRKGYFSKETSFQKSNSSSKATTMSEND 267
              | |  ||  :   :|::  :  : |   ::|
Db        342 TCRA--KGRPAPAITFRRWGTQEEYTNGQQDD 371


RESULT 8
CXAR_MOUSE
ID   CXAR_MOUSE     STANDARD;      PRT;   365 AA.
AC   P97792; O09052;
DT   30-MAY-2000 (Rel. 39, Created)
DT   30-MAY-2000 (Rel. 39, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Coxsackievirus and adenovirus receptor homolog precursor (mCAR).
GN   CXADR OR CAR.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Liver;
RX   MEDLINE=97190109; PubMed=9036860;
RA   Bergelson J.M., Cunningham J.A., Droguett G., Kurt-Jones E.,
RA   Krithivas A., Hong J.S., Horwitz M.S., Crowell R.L., Finberg R.W.;
RT   "Isolation of a common receptor for Coxsackie B viruses and
RT   adenoviruses 2 and 5.";
RL   Science 275:1320-1323(1997).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C3H/MAI;
RX   MEDLINE=97250541; PubMed=9096397;
RA   Tomko R.P., Xu R., Philipson L.;
RT   "HCAR and MCAR: the human and mouse cellular receptors for subgroup C
RT   adenoviruses and group B coxsackieviruses.";
RL   Proc. Natl. Acad. Sci. U.S.A. 94:3352-3356(1997).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Liver;
RA   Bergelson J.M., Krithivas A., Crowell T.L., Finberg R.W.;
RT   "The murine CAR homologue (mCAR) is a receptor for coxsackie B
RT   viruses and adenoviruses.";
RL   Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like C2-type domains.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; Y10320; CAA71368.1; -.
DR   EMBL; U90715; AAC53148.1; -.
DR   EMBL; Y11929; CAA72679.1; -.
DR   MGD; MGI:1201679; Cxadr.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain; Receptor; Transmembrane; Glycoprotein; Signal;
KW   Repeat.
FT   SIGNAL        1     19       POTENTIAL.
FT   CHAIN        20    365       COXSACKIEVIRUS AND ADENOVIRUS RECEPTOR
FT                                HOMOLOG.
FT   DOMAIN       20    237       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    238    258       POTENTIAL.
FT   DOMAIN      259    365       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       20    136       IG-LIKE C2-TYPE 1.
FT   DOMAIN      141    228       IG-LIKE C2-TYPE 2.
FT   DISULFID     41    120       BY SIMILARITY.
FT   DISULFID    162    212       BY SIMILARITY.
FT   CARBOHYD    106    106       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    201    201       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CONFLICT    340    365       VAAPNLSRMGAVPVMIPAQSKDGSIV -> FKYAYKTDGIT
FT                                VV (IN REF. 2 AND 3).
SQ   SEQUENCE   365 AA;  39947 MW;  5445B4B52A34B2A2 CRC64;

  Query Match            12.7%;  Score 180;  DB 1;  Length 365;
  Best Local Similarity  23.7%;  Pred. No. 5e-08;
  Matches   75;  Conservative   44;  Mismatches  130;  Indels   68;  Gaps    9;

Qy          6 GFSAPKDQQVVTAVXYQEAILACK---TPKKTVXSRLEW------KKLGRSVSFVY---- 52
              | |    :| :     : | | ||   :|:      :||       ::   |  :|
Db         19 GLSITTPEQRIEKAKGETAYLPCKFTLSPEDQGPLDIEWLISPSDNQIVDQVIILYSGDK 78

Qy         53 ----YQQTLQGDF---KNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVT 105
                   |   |:|       |  :  | :| : |:  || | |:|:|    ::   :
Db         79 IYDNYYPDLKGRVHFTSNDVKSGDASINVTNLQLSDIGTYQCKV----KKAPGVANKKFL 134

Qy        106 LEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTN 165
              | ||| |:   | |  |   |   :|:|: |||:   :: |                | :
Db        135 LTVLVKPSGTRCFVDGSEEIGNDFKLKCEPKEGSLPLQFEW--------------QKLS 179

Qy        166 SSYTMNT------KTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGII 219
              | || |       :  :     |   :| |||  :| ||  :|  :   |   | :| |
Db        180 DSQTMPTPWLAEMTSPVISVKNASSEYSGTYSCTVQNRVGSDQCMLRLDVVPPSNRAGTI 239

Qy        220 AAVVV---VALVISVCGLGVCYAQR-------------------KGYFSKETSFQKSNS 256
              |  |:   :|||:    |  |: :|                   |   |    |:  ||
Db        240 AGAVIGTLLALVLIGAILFCCHRKRREEKYEKEVHHDIREDVPPPKSRTSTARSYIGSNH 299

Qy        257 SSKATTMSENDFKHTKS 273
              ||  :    |   ::|:
Db        300 SSLGSMSPSNMEGYSKT 316


RESULT 9
UN89_CAEEL
ID   UN89_CAEEL     STANDARD;      PRT;  6632 AA.
AC   O01761; Q17362;
DT   15-SEP-2003 (Rel. 42, Created)
DT   15-SEP-2003 (Rel. 42, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Muscle M-line assembly protein unc-89 (Uncoordinated protein 89).
GN   UNC-89 OR C09D1.1.
OS   Caenorhabditis elegans.
OC   Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC   Rhabditidae; Peloderinae; Caenorhabditis.
OX   NCBI_TaxID=6239;
RN   [1]
RP   SEQUENCE FROM N.A., FUNCTION, AND TISSUE SPECIFICITY.
RC   STRAIN=Bristol N2;
RX   MEDLINE=96180278; PubMed=8603916;
RA   Benian G.M., Tinley T.L., Tang X., Borodovsky M.;
RT   "The Caenorhabditis elegans gene unc-89, required for muscle M-line
RT   assembly, encodes a giant modular protein composed of Ig and signal
RT   transduction domains.";
RL   J. Cell Biol. 132:835-848(1996).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Bristol N2;
RA   Du Z., Le T.T., Wilson R.;
RL   Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   REVISIONS.
RA   Waterston R.;
RL   Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Structural component of the muscle M-line. Myofilament
CC       lattice assembly begins with positional cues laid down in the
CC       basement membrane and muscle cell membrane. UNC-89 responds to
CC       these signals, localizes, and then participates in assembling an
CC       M-line.
```

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CC   -!- TISSUE SPECIFICITY: Localizes to the middle of A-bands.
CC   -!- SIMILARITY: Contains 1 DBL-homology (DH) domain.
CC   -!- SIMILARITY: Contains 1 fibronectin type III domain.
CC   -!- SIMILARITY: Contains 49 immunoglobulin-like C2-type domains.
CC   -!- SIMILARITY: Contains 1 PH domain.
CC   -!- SIMILARITY: Contains 5 RCSD domains.
CC   -!- SIMILARITY: Contains 1 SH3 domain.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U33058; AAB00542.1; -.
DR   EMBL; AF003131; AAB54132.2; -.
DR   PDB; 1FHO; 20-DEC-00.
DR   WormPep; C09D1.1; CE30426.
DR   InterPro; IPR003961; FN_III.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR001849; PH.
DR   InterPro; IPR007850; RCSD.
DR   InterPro; IPR000219; RhoGEF.
DR   InterPro; IPR001452; SH3.
DR   Pfam; PF00041; fn3; 1.
DR   Pfam; PF00047; ig; 47.
DR   Pfam; PF00169; PH; 1.
DR   Pfam; PF05177; RCSD; 5.
DR   Pfam; PF00621; RhoGEF; 1.
DR   Pfam; PF00018; SH3; 1.
DR   SMART; SM00408; IGc2; 23.
DR   SMART; SM00325; RhoGEF; 1.
DR   SMART; SM00326; SH3; 1.
DR   PROSITE; PS50010; DH_2; 1.
DR   PROSITE; PS50835; IG_LIKE; 49.
DR   PROSITE; PS50003; PH_DOMAIN; 1.
DR   PROSITE; PS50002; SH3; 1.
KW   Muscle protein; Immunoglobulin domain; Repeat; SH3 domain;
KW   3D-structure.
FT   DOMAIN       63    127       SH3.
FT   DOMAIN      152    330       DH.
FT   DOMAIN      342    498       PH.
FT   DOMAIN      547    633       IG-LIKE C2-TYPE 1.
FT   DOMAIN      648    736       IG-LIKE C2-TYPE 2.
FT   DOMAIN      748    838       IG-LIKE C2-TYPE 3.
FT   DOMAIN      946   1033       IG-LIKE C2-TYPE 4.
FT   DOMAIN     1044   1132       IG-LIKE C2-TYPE 5.
FT   DOMAIN     1140   1227       IG-LIKE C2-TYPE 6.
FT   DOMAIN     1272   1315       THR-RICH.
FT   DOMAIN     1375   1475       RCSD 1.
FT   DOMAIN     1479   1585       RCSD 2.
FT   DOMAIN     1597   1695       RCSD 3.
FT   DOMAIN     1700   1799       RCSD 4.
FT   DOMAIN     1800   1860       RCSD 5.
FT   DOMAIN     1982   2067       IG-LIKE C2-TYPE 7.
FT   DOMAIN     2071   2163       IG-LIKE C2-TYPE 8.
FT   DOMAIN     2171   2261       IG-LIKE C2-TYPE 9.
FT   DOMAIN     2269   2359       IG-LIKE C2-TYPE 10.
FT   DOMAIN     2367   2455       IG-LIKE C2-TYPE 11.
FT   DOMAIN     2463   2564       IG-LIKE C2-TYPE 12.
FT   DOMAIN     2563   2651       IG-LIKE C2-TYPE 13.
FT   DOMAIN     2657   2746       IG-LIKE C2-TYPE 14.
FT   DOMAIN     2754   2858       IG-LIKE C2-TYPE 15.
FT   DOMAIN     2887   2980       IG-LIKE C2-TYPE 16.
FT   DOMAIN     2994   3081       IG-LIKE C2-TYPE 17.
FT   DOMAIN     3087   3183       IG-LIKE C2-TYPE 18.
FT   DOMAIN     3189   3280       IG-LIKE C2-TYPE 19.
FT   DOMAIN     3286   3376       IG-LIKE C2-TYPE 20.
FT   DOMAIN     3384   3469       IG-LIKE C2-TYPE 21.
FT   DOMAIN     3482   3572       IG-LIKE C2-TYPE 22.
FT   DOMAIN     3580   3667       IG-LIKE C2-TYPE 23.
FT   DOMAIN     3686   3777       IG-LIKE C2-TYPE 24.
FT   DOMAIN     3817   3908       IG-LIKE C2-TYPE 25.
FT   DOMAIN     3920   4009       IG-LIKE C2-TYPE 26.
FT   DOMAIN     4018   4106       IG-LIKE C2-TYPE 27.
FT   DOMAIN     4109   4201       IG-LIKE C2-TYPE 28.
FT   DOMAIN     4212   4297       IG-LIKE C2-TYPE 29.
FT   DOMAIN     4302   4387       IG-LIKE C2-TYPE 30.
FT   DOMAIN     4400   4485       IG-LIKE C2-TYPE 31.
FT   DOMAIN     4489   4580       IG-LIKE C2-TYPE 32.
FT   DOMAIN     4588   4678       IG-LIKE C2-TYPE 33.
FT   DOMAIN     4681   4771       IG-LIKE C2-TYPE 34.
FT   DOMAIN     4873   4961       IG-LIKE C2-TYPE 35.
FT   DOMAIN     4965   5057       IG-LIKE C2-TYPE 36.
FT   DOMAIN     5067   5160       IG-LIKE C2-TYPE 37.
FT   DOMAIN     5171   5260       IG-LIKE C2-TYPE 38.
FT   DOMAIN     5277   5366       IG-LIKE C2-TYPE 39.
FT   DOMAIN     5383   5472       IG-LIKE C2-TYPE 40.
FT   DOMAIN     5487   5578       IG-LIKE C2-TYPE 41.
FT   DOMAIN     5595   5685       IG-LIKE C2-TYPE 42.
FT   DOMAIN     5701   5790       IG-LIKE C2-TYPE 43.
FT   DOMAIN     5815   5904       IG-LIKE C2-TYPE 44.
FT   DOMAIN     5925   6014       IG-LIKE C2-TYPE 45.
FT   DOMAIN     6038   6130       IG-LIKE C2-TYPE 46.
FT   DOMAIN     6150   6239       IG-LIKE C2-TYPE 47.
FT   DOMAIN     6275   6368       FIBRONECTIN TYPE-III.
FT   DOMAIN     6413   6502       IG-LIKE C2-TYPE 48.
FT   DOMAIN     6507   6596       IG-LIKE C2-TYPE 49.
FT   DISULFID    568    621       POTENTIAL.
FT   DISULFID   2908   2975       POTENTIAL.
FT   DISULFID   3015   3065       POTENTIAL.
FT   DISULFID   3707   3759       POTENTIAL.
FT   DISULFID   3826   3890       POTENTIAL.
FT   DISULFID   5092   5157       POTENTIAL.
FT   DISULFID   5298   5350       POTENTIAL.
FT   DISULFID   5508   5560       POTENTIAL.
FT   DISULFID   5616   5669       POTENTIAL.
FT   DISULFID   5722   5764       POTENTIAL.
FT   DISULFID   5836   5901       POTENTIAL.
FT   DISULFID   5946   5998       POTENTIAL.
FT   DISULFID   6036   6171       POTENTIAL.
FT   DISULFID   6421   6486       POTENTIAL.
FT   CONFLICT   2137   2137       A -> P (IN REF. 1).
FT   CONFLICT   2245   2247       AKA -> PKP (IN REF. 1).
FT   CONFLICT   2258   2258       A -> P (IN REF. 1).
FT   CONFLICT   2284   2284       E -> G (IN REF. 1).
FT   CONFLICT   2297   2297       M -> I (IN REF. 1).
FT   CONFLICT   3531   3531       A -> G (IN REF. 1).
FT   CONFLICT   3884   3888       DAGEY -> RRRRI (IN REF. 1).
FT   CONFLICT   3929   3929       A -> V (IN REF. 1).
FT   CONFLICT   5134   5134       A -> P (IN REF. 1).
FT   CONFLICT   5145   5145       T -> S (IN REF. 1).
FT   CONFLICT   5185   5185       G -> A (IN REF. 1).
FT   CONFLICT   5199   5199       K -> N (IN REF. 1).
FT   CONFLICT   5202   5202       L -> F (IN REF. 1).
FT   CONFLICT   5213   5213       F -> L (IN REF. 1).
FT   CONFLICT   6178   6178       A -> G (IN REF. 1).
FT   CONFLICT   6268   6268       K -> E (IN REF. 1).
SQ   SEQUENCE   6632 AA;  731665 MW;  262D3EDD62960E89 CRC64;

  Query Match           12.1%;  Score 171;  DB 1;  Length 6632;
  Best Local Similarity  28.1%;  Pred. No. 1e-05;
  Matches   61;  Conservative   29;  Mismatches   75;  Indels   52;  Gaps   11;

Qy          6 GFSAPKDQQVV---TAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGDFK 62
              |  ||:  :::    |    |:||| ||  |     :::| | |: |           :
Db       3813 GRGAPEFVELLRSCTVTEKQQAILKCKV-KGEPRPKIKWTKEGKEVEM---------SAR 3862

Qy         63 NRAEMID---FNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEV 119
                |||  |     :   |||::|||:||||  | :| |    |  : : :  || :   |
Db       3863 VRAEHKDDGTLTLTFDNVTQADAGEYRCE--AENEYGSAWTEGPIIVTLEGAPKIDG-EA 3919
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Qy        120 P--------------SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQST 164
              |              :: | | :       | | |   |:|:|  |  : |: :
Db       3920 PDFLQPVKPAVVTVGETAVLEGKI--------SGKPKPSVKWYKNGEELKPSDRVKIE-- 3969

Qy        165 NSSYTMNTKTGTLQFN-TVSKL-DTGEYSCEARNSVG 199
                |  || :   | :|| |  || ||| |  |
Db       3970 ------NLDDGTQRLTVTNAKLDDMDEYRCEASNEFG 4000


RESULT 10
CEA6_HUMAN
ID   CEA6_HUMAN     STANDARD;      PRT;   344 AA.
AC   P40199; Q14920;
DT   01-FEB-1995 (Rel. 31, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Carcinoembryonic antigen-related cell adhesion molecule 6 precursor
DE   (Normal cross-reacting antigen) (Nonspecific crossreacting antigen)
DE   (CD66c antigen).
GN   CEACAM6 OR NCA.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=89122014; PubMed=3220478;
RA   Barnett T., Goebel S.J., Nothdurft M.A., Elting J.J.;
RT   "Carcinoembryonic antigen family: characterization of cDNAs coding
RT   for NCA and CEA and suggestion of nonrandom sequence variation in
RT   their conserved loop-domains.";
RL   Genomics 3:59-66(1988).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Lung carcinoma;
RX   MEDLINE=88106638; PubMed=3337731;
RA   Tawaragi Y., Oikawa S., Matsuoka Y., Kosaki G., Nakazato H.;
RT   "Primary structure of nonspecific crossreacting antigen (NCA), a
RT   member of carcinoembryonic antigen (CEA) gene family, deduced from
RT   cDNA sequence.";
RL   Biochem. Biophys. Res. Commun. 150:89-96(1988).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Pancreas;
RX   MEDLINE=22388257; PubMed=12477932;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY. CEA
CC       SUBFAMILY.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
CC   -!- SIMILARITY: Contains 2 immunoglobulin-like C2-type domains.
CC   -!- DATABASE: NAME=PROW; NOTE=CD guide CD66c entry;
CC       WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd66c.htm".
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; M29541; AAA59915.1; -.
DR   EMBL; M18728; AAA59907.1; -.
DR   EMBL; BC005008; AAH05008.1; -.
DR   Genew; HGNC:1818; CEACAM6.
DR   MIM; 163980; -.
DR   GO; GO:0005887; C:integral to plasma membrane; TAS.
DR   GO; GO:0007267; P:cell-cell signaling; TAS.
DR   GO; GO:0007165; P:signal transduction; TAS.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 3.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain; Antigen; Signal; Glycoprotein; GPI-anchor;
KW   Repeat.
FT   SIGNAL        1     34       BY SIMILARITY.
FT   CHAIN        35    320       CARCINOEMBRYONIC ANTIGEN-RELATED CELL
FT                                 ADHESION MOLECULE 6.
FT   PROPEP      321    344       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       320    320       GPI-ANCHOR (BY SIMILARITY).
FT   DOMAIN       35    142       IG-LIKE V-TYPE.
FT   DOMAIN      145    232       IG-LIKE C2-TYPE 1.
FT   DOMAIN      237    314       IG-LIKE C2-TYPE 2.
FT   DISULFID    167    215       PROBABLE.
FT   DISULFID    259    299       PROBABLE.
FT   CARBOHYD    104    104       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    111    111       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    115    115       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    152    152       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    173    173       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    197    197       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    224    224       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    256    256       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    274    274       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    288    288       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    292    292       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    309    309       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CONFLICT    138    138       F -> L (IN REF. 1).
FT   CONFLICT    239    239       V -> G (IN REF. 1).
SQ   SEQUENCE   344 AA;  37237 MW;  4322C5D6E25849F5 CRC64;

  Query Match             11.6%;  Score 164;  DB 1;  Length 344;
  Best Local Similarity   29.0%;  Pred. No. 1.1e-06;
  Matches   49;  Conservative   25;  Mismatches   61;  Indels   34;  Gaps    8;

Qy         69 DFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSA--LSG 126
              :  : : :| |:||| | ||:  |:   ::   | ||| ||  | ||:   || |    |
Db        197 NMTLTLLSVKRNDAGSYECEIQNPASANRS---DPVTLNVLYGPDVPTIS-PSKANYRPG 252

Qy        127 TVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLD 186
              : | |     ||  :|:|| :|                .   |    | |    ::  :
Db        253 ENLNLSCH-AASNPPAQYSWFING-----------------TFQQSTQELFIPNITVNN 293

Qy        187 TGEYSCEARNSVGYRRCPG-KRMQVDDLNISG---IIAAVVVVALVISV 231
              :| | |:| ||       | |  |  : :||   :::||  | : | |
Db        294 SGSYMCQAHNS-----ATGLNRTTVTMITVSGSAPVLSAVATVGITIGV 337


RESULT 11
VGR2_MOUSE
ID   VGR2_MOUSE     STANDARD;      PRT;  1367 AA.
AC   P35918;
DT   01-JUN-1994 (Rel. 29, Created)
DT   01-JUN-1994 (Rel. 29, Last sequence update)
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DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Vascular endothelial growth factor receptor 2 precursor (EC 2.7.1.112)
DE   (VEGFR-2) (Protein-tyrosine kinase receptor flk-1) (Fetal liver kinase
DE   1) (Kinase NYK).
GN   KDR OR FLK1 OR FLK-1.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=BALB/c; TISSUE=Embryo;
RX   MEDLINE=93208880; PubMed=7681362;
RA   Millauer B., Wizigmann-Voos S., Schnurch H., Martinez R.,
RA   Mueller N.P.H., Risau W., Ullrich A.;
RT   "High affinity VEGF binding and developmental expression suggest
RT   Flk-1 as a major regulator of vasculogenesis and angiogenesis.";
RL   Cell 72:835-846(1993).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C3H/He; TISSUE=Fetal liver;
RX   MEDLINE=92020984; PubMed=1717995;
RA   Mathews W., Jordan C.T., Gavin M., Jenkins N.A., Copeland N.G.,
RA   Lemishcka I.R.;
RT   "A receptor tyrosine kinase cDNA isolated from a population of
RT   enriched primitive hematopoietic cells and exhibiting close genetic
RT   linkage to c-kit.";
RL   Proc. Natl. Acad. Sci. U.S.A. 88:9026-9030(1991).
RN   [3]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93141255; PubMed=8423988;
RA   Oelrichs R.B., Reid H.H., Bernard O., Ziemiecki A., Wilks A.F.;
RT   "NYK/FLK-1: a putative receptor protein tyrosine kinase isolated from
RT   E10 embryonic neuroepithelium is expressed in endothelial cells of
RT   the developing embryo.";
RL   Oncogene 8:11-18(1993).
RN   [4]
RP   SEQUENCE OF 1-15 FROM N.A.
RX   MEDLINE=96032749; PubMed=7559454;
RA   Patterson C., Perrella M.A., Hsieh C.-M., Yoshizumi M., Lee M.-E.,
RA   Harber E.;
RT   "Cloning and functional analysis of the promoter for KDR/flk-1, a
RT   receptor for vascular endothelial growth factor.";
RL   J. Biol. Chem. 270:23111-23118(1995).
RN   [5]
RP   FUNCTION.
RX   MEDLINE=93361481; PubMed=8356051;
RA   Quinn T.P., Peters K.G., de Vries C., Ferrara N., Williams L.T.;
RT   "Fetal liver kinase 1 is a receptor for vascular endothelial growth
RT   factor and is selectively expressed in vascular endothelium.";
RL   Proc. Natl. Acad. Sci. U.S.A. 90:7533-7537(1993).
CC   -!- FUNCTION: RECEPTOR FOR VEGF OR VEGF-C. HAS A TYROSINE-PROTEIN
CC       KINASE ACTIVITY. THE VEGF-KINASE LIGAND/RECEPTOR SIGNALING SYSTEM
CC       PLAYS A KEY ROLE IN VASCULAR DEVELOPMENT AND REGULATION OF
CC       VASCULAR PERMEABILITY.
CC   -!- CATALYTIC ACTIVITY: ATP + a protein tyrosine = ADP + protein
CC       tyrosine phosphate.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN ADULT HEART, LUNG,
CC       KIDNEY, BRAIN AND SKELETAL MUSCLE, BUT IS ALSO EXPRESSED AT LOWER
CC       LEVELS IN MOST OTHER ADULT TISSUES.
CC   -!- SIMILARITY: BELONGS TO THE CSF-1/PDGF RECEPTOR FAMILY OF TYROSINE-
CC       PROTEIN KINASES.
CC   -!- SIMILARITY: Contains 7 immunoglobulin-like C2-type domains.
CC   ---------------------------------------------------------------------
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CC   ---------------------------------------------------------------------
DR   EMBL; X70842; CAA50192.1; -.
DR   EMBL; X59397; CAA42040.1; -.
DR   EMBL; S53103; AAB25043.1; -.
DR   EMBL; X89777; CAA61917.1; -.
DR   PIR; A41228; A41228.
DR   HSSP; P11362; 1FGK.
DR   MGD; MGI:96683; Kdr.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR000719; Prot_kinase.
DR   InterPro; IPR001824; RTKinaseIII.
DR   InterPro; IPR001245; Tyr_pkinase.
DR   Pfam; PF00047; ig; 6.
DR   Pfam; PF00069; pkinase; 1.
DR   ProDom; PD000001; Prot_kinase; 2.
DR   SMART; SM00408; IGc2; 1.
DR   SMART; SM00219; TyrKc; 1.
DR   PROSITE; PS50835; IG_LIKE; 5.
DR   PROSITE; PS00107; PROTEIN_KINASE_ATP; 1.
DR   PROSITE; PS50011; PROTEIN_KINASE_DOM; 1.
DR   PROSITE; PS00109; PROTEIN_KINASE_TYR; 1.
DR   PROSITE; PS00240; RECEPTOR_TYR_KIN_III; 1.
KW   Angiogenesis; Signal; Transferase; Tyrosine-protein kinase; Receptor;
KW   Transmembrane; Glycoprotein; Phosphorylation; ATP-binding;
KW   Immunoglobulin domain; Repeat.
FT   SIGNAL        1     19       POTENTIAL.
FT   CHAIN        20   1367       VASCULAR ENDOTHELIAL GROWTH FACTOR
FT                                RECEPTOR 2.
FT   DOMAIN       20    762       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    763    784       POTENTIAL.
FT   DOMAIN      785   1367       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       46    111       IG-LIKE C2-TYPE 1.
FT   DOMAIN      143    209       IG-LIKE C2-TYPE 2.
FT   DOMAIN      226    325       IG-LIKE C2-TYPE 3.
FT   DOMAIN      330    416       IG-LIKE C2-TYPE 4.
FT   DOMAIN      423    542       IG-LIKE C2-TYPE 5.
FT   DOMAIN      549    656       IG-LIKE C2-TYPE 6.
FT   DOMAIN      665    751       IG-LIKE C2-TYPE 7.
FT   DOMAIN      832   1160       PROTEIN KINASE.
FT   NP_BIND     838    846       ATP (BY SIMILARITY).
FT   BINDING     866    866       ATP (BY SIMILARITY).
FT   ACT_SITE   1026   1026       BY SIMILARITY.
FT   CARBOHYD     46     46       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     98     98       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    145    145       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    160    160       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    247    247       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    320    320       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    376    376       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    397    397       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    509    509       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    521    521       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    578    578       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    611    611       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    617    617       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    629    629       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    673    673       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    702    702       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    719    719       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   MOD_RES    1057   1057       PHOSPHORYLATION (AUTO-) (BY SIMILARITY).
FT   CONFLICT     25     25       P -> T (IN REF. 1).
FT   CONFLICT    679    679       G -> D (IN REF. 3).
FT   CONFLICT    783    784       LV -> VL (IN REF. 1).
FT   CONFLICT    917    917       S -> C (IN REF. 1).
FT   CONFLICT   1341   1367       QLTSCLNGSGPVPAPPPTPGNHERGAA -> RSPPV
FT                                (IN REF. 3).
SQ   SEQUENCE   1367 AA;  152516 MW;  EFC99704F1DCA266 CRC64;

  Query Match             11.3%;  Score 160.5;  DB 1;  Length 1367;
  Best Local Similarity   24.8%;  Pred. No. 1.1e-05;
  Matches   53;  Conservative   23;  Mismatches   75;  Indels   63;  Gaps    6;
```

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Qy         22 QEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFN---------- 71
              ||::    |  :     | | |||   : |:  ::|    ||   :   |
Db        562 QESVSLLCTADRNTFENLTWYKLGSQATSVHMGESLTPVCKNLDALWKLNGTMFSNSTND 621

Qy         72 ---IRIKNVTRSDAGKYRC--------------------EVSAPSEQGQNLEEDTVTLEV 108
                 :  :| :  | | | |                    |  ||   | |||  | |:
Db        622 ILIVAFQNASLQDQGDYVCSAQDKKTKKRHCLVKQLIILERMAPMITG-NLENQTTTI-- 678

Qy        109 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSY 168
                        |  :|: |    ||| |  |||||    |:|:  :  :  | :
Db        679 ----------------GETIEVTC-PASGNPTPHITWFKDNETLVEDSGIVLRDGNRNL 720

Qy        169 TMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRR 202
              |:          | | | | |:|:| | :|  |
Db        721 TI---------RRVRKEDGGLYTCQACNVLGCAR 745
```

RESULT 12
NCM2_MOUSE
ID NCM2_MOUSE STANDARD; PRT; 837 AA.
AC O35136; O35962;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 15-SEP-2003 (Rel. 42, Last annotation update)
DE Neural cell adhesion molecule 2 precursor (N-CAM 2) (RB-8 neural cell
DE adhesion molecule) (R4B12).
GN NCAM2 OR OCAM OR RNCAM.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A. (ISOFORMS LONG AND SHORT).
RC STRAIN=BALB/c; TISSUE=Olfactory neuroepithelium;
RX MEDLINE=97368238; PubMed=9221781;
RA Yoshihara Y., Kawasaki M., Tamada A., Fujita H., Hayashi H.,
RA Kagamiyama H., Mori K.;
RT "OCAM: A new member of the neural cell adhesion molecule family
RT related to zone-to-zone projection of olfactory and vomeronasal
RT axons.";
RL J. Neurosci. 17:5830-5842(1997).
RN [2]
RP SEQUENCE FROM N.A. (ISOFORM SHORT).
RC STRAIN=C57BL/6J; TISSUE=Olfactory epithelium;
RX MEDLINE=97476194; PubMed=9334170;
RA Alenius M., Bohm S.;
RT "Identification of a novel neural cell adhesion molecule-related gene
RT with a potential role in selective axonal projection.";
RL J. Biol. Chem. 272:26083-26086(1997).
CC -!- FUNCTION: May play important roles in selective fasciculation and
CC zone-to-zone projection of the primary olfactory axons.
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (long isoform) and
CC attached to the membrane by a GPI-anchor (short isoform).
CC -!- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=Long;
CC IsoId=O35136-1; Sequence=Displayed;
CC Name=Short;
CC IsoId=O35136-2; Sequence=VSP_002590;
CC -!- TISSUE SPECIFICITY: EXPRESSED IN SUBSETS OF BOTH OLFACTORY AND
CC VOMERONASAL NEURONS IN A ZONE-SPECIFIC MANNER.
CC -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC -!- SIMILARITY: Contains 5 immunoglobulin-like C2-type domains.
CC -!- SIMILARITY: Contains 2 fibronectin type III domains.
CC ---

CC ---

DR EMBL; AF001287; AAB69125.1; -.
DR EMBL; AF001286; AAB69124.1; -.
DR EMBL; AF016619; AAC53375.1; -.
DR MGD; MGI:97282; Ncam2.
DR InterPro; IPR003961; FN_III.
DR InterPro; IPR007110; Ig-like.
DR InterPro; IPR003598; Ig_c2.
DR InterPro; IPR003006; Ig_MHC.
DR Pfam; PF00041; fn3; 2.
DR Pfam; PF00047; ig; 5.
DR SMART; SM00060; FN3; 2.
DR SMART; SM00408; IGc2; 5.
DR PROSITE; PS50835; IG_LIKE; 5.
KW Cell adhesion; Transmembrane; Glycoprotein; Repeat;
KW Immunoglobulin domain; Signal; GPI-anchor; Alternative splicing.

FT	SIGNAL	1	19 POTENTIAL.
FT	CHAIN	20	837 NEURAL CELL ADHESION MOLECULE 2.
FT	DOMAIN	20	697 EXTRACELLULAR (POTENTIAL).
FT	TRANSMEM	698	718 POTENTIAL.
FT	DOMAIN	719	837 CYTOPLASMIC (POTENTIAL).
FT	DOMAIN	21	108 IG-LIKE C2-TYPE 1.
FT	DOMAIN	113	202 IG-LIKE C2-TYPE 2.
FT	DOMAIN	208	297 IG-LIKE C2-TYPE 3.
FT	DOMAIN	302	396 IG-LIKE C2-TYPE 4.
FT	DOMAIN	401	491 IG-LIKE C2-TYPE 5.
FT	DOMAIN	482	581 FIBRONECTIN TYPE-III 1.
FT	DOMAIN	594	678 FIBRONECTIN TYPE-III 2.
FT	DISULFID	42	93 PROBABLE.
FT	DISULFID	136	186 PROBABLE.
FT	DISULFID	232	281 PROBABLE.
FT	DISULFID	322	380 PROBABLE.
FT	DISULFID	422	475 PROBABLE.
FT	CARBOHYD	177	177 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT	CARBOHYD	219	219 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT	CARBOHYD	309	309 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT	CARBOHYD	406	406 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT	CARBOHYD	419	419 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT	CARBOHYD	445	445 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT	CARBOHYD	474	474 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT	CARBOHYD	562	562 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT	VARSPLIC	694	837 TLFNGLGLGAIIGLGVAALLLILVVTDVSCFFIRQCGLLMC
FT			ITRRMCGKKSGSSGKSKELEEGKAAYLKDGSKEPIVEMRTE
FT			DERITNHEDGSPVNEPNETTPLTEPEKLPLKEENGKEVLNA
FT			ETIEIKVSNDIIQSKEDDIKA -> NCCEANKGENGGQSWH
FT			LNAVGFTFVITMSLSCLF (in isoform Short).
FT			/FTId=VSP_002590.

SQ SEQUENCE 837 AA; 93203 MW; 70473B053A2D65A5 CRC64;

Query Match 11.2%; Score 159.5; DB 1; Length 837;
Best Local Similarity 29.7%; Pred. No. 7.6e-06;
Matches 47; Conservative 34; Mismatches 58; Indels 19; Gaps 7;

```
Qy         47 SVSFVYYQQTLQGDFKNR-AEMIDFNIRIKNVTRSDAGKYRCE--VSAPSEQGQNLEEDT 103
              :||::|: : :      || | : : |::| |: :|| | ||||  | |  |    ::
Db        145 AVSWLYHNEEVTTIPDNRFAVLANNNLQILNINKSDEGIYRCEGRVEARGE----IDFRD 200

Qy        104 VTLEVLVAPAV--PSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 161
              : : | | ||:  |     ::|  |  : | |:   |:| |  :||::|  : || :
Db        201 IIVIVNVPPAIMMPQKSFNATAERGEEMTLTCK-ASGSPDPTISWFRNGKLIEENEKYIL 259

Qy        162 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVG 199
              : :|:  |:         | ::| | | | |:| |  |
Db        260 KGSNTELTVR--------NIINK-DGGSYVCKATNKAG 288
```

RESULT 13
NRG2_RAT
ID NRG2_RAT STANDARD; PRT; 868 AA.
AC O35569; O35073; O35570; O35571; O35572;
DT 15-DEC-1998 (Rel. 37, Created)
DT 15-DEC-1998 (Rel. 37, Last sequence update)
DT 15-SEP-2003 (Rel. 42, Last annotation update)
DE Pro-neuregulin-2 precursor (Pro-NRG2) [Contains: Neuregulin-2 (NRG-2)

```
DE   (Neural-and thymus-derived activator for ERBB kinases) (NTAK)].
GN   NRG2 OR NTAK.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A., SEQUENCE OF 128-162, AND ALTERNATIVE SPLICING.
RX   MEDLINE=98006324; PubMed=9348101;
RA   Higashiyama S., Horikawa M., Yamada K., Ichino N., Nakano N.,
RA   Nakagawa T., Miyagawa J., Matsushita N., Nagatsu T., Taniguchi N.,
RA   Ishiguro H.;
RT   "A novel brain-derived member of the epidermal growth factor family
RT   that interacts with ErbB3 and ErbB4.";
RL   J. Biochem. 122:675-680(1997).
RN   [2]
RP   SEQUENCE OF 109-868 FROM N.A. (ISOFORMS 6 AND 7).
RC   TISSUE=Cerebellum;
RX   MEDLINE=97311397; PubMed=9168114;
RA   Chang H., Riese D.J. II, Gilbert W., Stern D.F., McMahan U.J.;
RT   "Ligands for ErbB-family receptors encoded by a neuregulin-like
RT   gene.";
RL   Nature 387:509-512(1997).
CC   -!- FUNCTION: DIRECT LIGAND FOR ERBB3 AND ERBB4 TYROSINE KINASE
CC       RECEPTORS. CONCOMITANTLY RECRUITS ERBB1 AND ERBB2 CORECEPTORS,
CC       RESULTING IN LIGAND-STIMULATED TYROSINE PHOSPHORYLATION AND
CC       ACTIVATION OF THE ERBB RECEPTORS. MAY ALSO PROMOTE THE
CC       HETERODIMERIZATION WITH THE EGF RECEPTOR.
CC   -!- SUBCELLULAR LOCATION: EXISTS AS AN TYPE I MEMBRANE PROTEIN AND AS
CC       A PROTEOLYTICALLY RELEASED SOLUBLE GROWTH FACTOR FORM. THE
CC       MEMBRANE-BOUND FORM DOES NOT SEEM TO BE ACTIVE (BY SIMILARITY).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=7;
CC         Comment=Additional isoforms seem to exist. The alpha-type and
CC         beta-type differ in the EGF-LIKE domain;
CC       Name=1; Synonyms=NTAK-alpha1;
CC         IsoId=O35569-1; Sequence=Displayed;
CC       Name=2; Synonyms=NTAK-alpha2A;
CC         IsoId=O35569-2; Sequence=VSP_003471;
CC       Name=3; Synonyms=NTAK-alpha2B, NTAK-alpha2-1P;
CC         IsoId=O35569-3; Sequence=VSP_003466, VSP_003471;
CC       Name=4; Synonyms=NTAK-beta;
CC         IsoId=O35569-4; Sequence=VSP_003470;
CC       Name=5; Synonyms=NTAK-gamma;
CC         IsoId=O35569-5; Sequence=VSP_003467, VSP_003468;
CC       Name=6; Synonyms=NRG2-alpha;
CC         IsoId=O35569-6; Sequence=VSP_003472, VSP_003473;
CC       Name=7; Synonyms=NRG2-beta;
CC         IsoId=O35569-7; Sequence=VSP_003465, VSP_003469;
CC   -!- TISSUE SPECIFICITY: EXPRESSED IN MOST PARTS OF THE BRAIN,
CC       ESPECIALLY THE OLFACTORY BULB AND CEREBELLUM WHERE IT LOCALIZES IN
CC       GRANULE AND PURKINJE CELLS. IN THE HIPPOCAMPUS, FOUND IN THE
CC       GRANULE CELLS OF THE DENTRATE GYRUS. IN THE BASAL FOREBRAIN, FOUND
CC       IN THE CHOLINERGIC CELLS. IN THE HINDBRAIN, WEAKLY DETECTABLE IN
CC       THE MOTOR TRIGEMINAL NUCLEUS. NOT DETECTED IN THE HYPOTHALAMUS.
CC       ALSO FOUND IN THE LIVER AND IN THE THYMUS. NOT DETECTED IN HEART,
CC       ADRENAL GLAND, OR TESTIS.
CC   -!- DEVELOPMENTAL STAGE: IN THE EMBRYO, EXPRESSED IN THE BRAIN OF
CC       E11.5 EMBRYOS WHERE IT IS FOUND IN THE TELENCEPHALON, BUT NOT IN
CC       THE HINDBRAIN. NOT FOUND IN THE HEART. IN THE ADULT, FOUND IN
CC       BRAIN AND THYMUS.
CC   -!- DOMAIN: THE CYTOPLASMIC DOMAIN MAY BE INVOLVED IN THE REGULATION
CC       OF TRAFFICKING AND PROTEOLYTIC PROCESSING. REGULATION OF THE
CC       PROTEOLYTIC PROCESSING INVOLVES INITIAL INTRACELLULAR DOMAIN
CC       DIMERIZATION (BY SIMILARITY).
CC   -!- DOMAIN: ERBB RECEPTOR BINDING IS ELICITED ENTIRELY BY THE EGF-LIKE
CC       DOMAIN (BY SIMILARITY).
CC   -!- PTM: PROTEOLYTIC CLEAVAGE CLOSE TO THE PLASMA MEMBRANE ON THE
CC       EXTERNAL FACE LEADS TO THE RELEASE OF THE SOLUBLE GROWTH FACTOR
CC       FORM (BY SIMILARITY).
CC   -!- PTM: EXTENSIVE GLYCOSYLATION PRECEDES THE PROTEOLYTIC CLEAVAGE (BY
CC       SIMILARITY).
CC   -!- SIMILARITY: Contains 1 EGF-like domain.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC   -!- SIMILARITY: BELONGS TO THE NEUREGULIN FAMILY.
CC   ---------------------------------------------------------------------
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CC   ---------------------------------------------------------------------
DR   EMBL; D89995; BAA23344.1; -.
DR   EMBL; D89996; BAA23345.1; -.
DR   EMBL; D89997; BAA23346.1; -.
DR   EMBL; D89998; BAA23347.1; -.
DR   EMBL; AB001576; BAA23348.1; -.
DR   PIR; JC5701; JC5701.
DR   PIR; JC5702; JC5702.
DR   HSSP; Q12784; 1HRE.
DR   InterPro; IPR006209; EGF_like.
DR   InterPro; IPR006210; IEGF.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR002154; Neuregulin.
DR   Pfam; PF00008; EGF; 1.
DR   Pfam; PF00047; ig; 1.
DR   Pfam; PF02158; Neuregulin; 1.
DR   SMART; SM00181; EGF; 1.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS00022; EGF_1; 1.
DR   PROSITE; PS01186; EGF_2; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Growth factor; EGF-like domain; Immunoglobulin domain; Glycoprotein;
KW   Transmembrane; Multigene family; Alternative splicing.
FT   PROPEP          1    127
FT   CHAIN         128    868       PRO-NEUREGULIN-2, MEMBRANE-BOUND FORM.
FT   CHAIN         128    428       NEUREGULIN-2.
FT   DOMAIN        128    429       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM      430    450       INTERNAL SIGNAL SEQUENCE (POTENTIAL).
FT   DOMAIN        451    868       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN        253    348       IG-LIKE C2-TYPE.
FT   DOMAIN        346    356       SER/THR-RICH.
FT   DOMAIN        357    398       EGF-LIKE.
FT   DOMAIN         22     32       POLY-SER.
FT   DOMAIN         35     45       POLY-SER.
FT   DOMAIN         56     59       POLY-THR.
FT   DOMAIN        103    106       POLY-ALA.
FT   DOMAIN        739    745       POLY-PRO.
FT   DISULFID      273    327       BY SIMILARITY.
FT   DISULFID      361    375       BY SIMILARITY.
FT   DISULFID      369    386       BY SIMILARITY.
FT   DISULFID      388    397       BY SIMILARITY.
FT   CARBOHYD       33     33       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD       34     34       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD      163    163       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD      294    294       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD      362    362       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARSPLIC        1    108       Missing (in isoform 7).
FT                                  /FTId=VSP_003465.
FT   VARSPLIC      220    222       PLV -> FFF (in isoform 3).
FT                                  /FTId=VSP_003466.
FT   VARSPLIC      388    388       C -> G (in isoform 5).
FT                                  /FTId=VSP_003467.
FT   VARSPLIC      389    868       Missing (in isoform 5).
FT                                  /FTId=VSP_003468.
FT   VARSPLIC      390    412       NGFFGQRCLEKLPLRLYMPDPKQ -> VGYTGDRCQQFAMV
FT                                  NFS (in isoform 7).
FT                                  /FTId=VSP_003469.
FT   VARSPLIC      390    421       NGFFGQRCLEKLPLRLYMPDPKQKHLGFELKE -> VGYTG
FT                                  DRCQQFAMVNFSK (in isoform 4).
FT                                  /FTId=VSP_003470.
FT   VARSPLIC      414    421       Missing (in isoform 2 and isoform 3).
```

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FT                                /FTId=VSP_003471.
FT   VARSPLIC    414    439       HLGFELKEAEELYQKRVLTITGICVA -> SVLWDTPGTGV
FT                                SSSQWSTSPSTLDLN (in isoform 6).
FT                                /FTId=VSP_003472.
FT   VARSPLIC    440    868       Missing (in isoform 6).
FT                                /FTId=VSP_003473.
FT   CONFLICT    117    117       S -> F (IN REF. 2).
FT   CONFLICT    724    724       R -> H (IN REF. 2).
SQ   SEQUENCE   868 AA;  93776 MW;  3C7D4D94DBE64DE2 CRC64;

  Query Match             11.1%;  Score 157;  DB 1;  Length 868;
  Best Local Similarity   27.7%;  Pred. No. 1.3e-05;
  Matches   56;  Conservative   24;  Mismatches   86;  Indels   36;  Gaps    8;

Qy         44 LGRSVSFVYYQQTLQGD--FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEE 101
              | |:  :::: :  :    ||     :| |   ||: : : ||  |   |   : : ::
Db        204 LERNQRYIFFLEPTEQPLVFKTAFAPVDPN--GKNI-KKEVGKILCTDCATRPKLKKMKS 260

Qy        102 DTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 161
              |  :                |     |:|:   ||| | | |||||  |       |
Db        261 QTGEV------------------GEKQSLKCEAAAGNPQPSYRWFKDGKELNR-----S 296

Qy        162 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNI-----S 216
              :    |   |  |||| |   | ||| ||| | :|     | |: |: ::      |
Db        297 RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVRG-RLHVNSVSTTLSSWS 355

Qy        217 GIIAAVVVVALVISVCGLGVCY 238
              |       |    | | ||||
Db        356 GHARKCNETAKSYCVNG-GVCY 376


RESULT 14
NRG2_MOUSE
ID   NRG2_MOUSE     STANDARD;      PRT;   756 AA.
AC   P56974;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Pro-neuregulin-2 precursor (Pro-NRG2) [Contains: Neuregulin-2 (NRG-2)
DE   (Divergent of neuregulin 1) (DON-1)].
GN   NRG2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS NRG2-5; NRG2-10 AND NRG2-16A).
RC   STRAIN=C57BL/6; TISSUE=Brain;
RX   MEDLINE=97311398; PubMed=9168115;
RA   Carraway K.L. III, Weber J.L., Unger M.J., Ledesma J., Yu N.,
RA   Gassmann M., Lai C.;
RT   "Neuregulin-2, a new ligand of ErbB3/ErbB4-receptor tyrosine
RT   kinases.";
RL   Nature 387:512-516(1997).
RN   [2]
RP   SEQUENCE OF 150-756 FROM N.A. (ISOFORMS DON-1M AND DON-1S).
RC   TISSUE=Choroid plexus;
RX   MEDLINE=97342638; PubMed=9199335;
RA   Busfield S.J., Michnick D.A., Chickering T.W., Revett T.L., Ma J.,
RA   Woolf E.A., Comrack C.A., Dussault B.J., Woolf J., Goodearl A.D.J.,
RA   Gearing D.P.;
RT   "Characterization of a neuregulin-related gene, Don-1, that is highly
RT   expressed in restricted regions of the cerebellum and hippocampus.";
RL   Mol. Cell. Biol. 17:4007-4014(1997).
CC   -!- FUNCTION: DIRECT LIGAND FOR ERBB3 AND ERBB4 TYROSINE KINASE
CC       RECEPTORS. CONCOMITANTLY RECRUITS ERBB1 AND ERBB2 CORECEPTORS,
CC       RESULTING IN LIGAND-STIMULATED TYROSINE PHOSPHORYLATION AND
CC       ACTIVATION OF THE ERBB RECEPTORS. MAY ALSO PROMOTE THE
CC       HETERODIMERIZATION WITH THE EGF RECEPTOR.
CC   -!- SUBCELLULAR LOCATION: EXISTS AS AN TYPE I MEMBRANE PROTEIN AND AS
CC       A PROTEOLYTICALLY RELEASED SOLUBLE GROWTH FACTOR FORM. THE
CC       MEMBRANE-BOUND FORM DOES NOT SEEM TO BE ACTIVE (BY SIMILARITY).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=4;
CC         Comment=Additional isoforms seem to exist;
CC       Name=NRG2-16A;
CC         IsoId=P56974-1; Sequence=Displayed;
CC       Name=DON-1M;
CC         IsoId=P56974-2; Sequence=VSP_003464;
CC       Name=DON-1S; Synonyms=NRG2-5;
CC         IsoId=P56974-3; Sequence=VSP_003462, VSP_003463;
CC       Name=NRG2-10;
CC         IsoId=P56974-4; Sequence=VSP_003460, VSP_003461;
CC   -!- TISSUE SPECIFICITY: HIGHEST EXPRESSION IN THE BRAIN, WITH LOWER
CC       LEVELS IN THE LUNG. IN THE CEREBELLUM, FOUND IN GRANULE AND
CC       PURKINJE CELLS.
CC   -!- DOMAIN: THE CYTOPLASMIC DOMAIN MAY BE INVOLVED IN THE REGULATION
CC       OF TRAFFICKING AND PROTEOLYTIC PROCESSING. REGULATION OF THE
CC       PROTEOLYTIC PROCESSING INVOLVES INITIAL INTRACELLULAR DOMAIN
CC       DIMERIZATION (BY SIMILARITY).
CC   -!- DOMAIN: ERBB RECEPTOR BINDING IS ELICITED ENTIRELY BY THE EGF-LIKE
CC       DOMAIN (BY SIMILARITY).
CC   -!- PTM: PROTEOLYTIC CLEAVAGE CLOSE TO THE PLASMA MEMBRANE ON THE
CC       EXTERNAL FACE LEADS TO THE RELEASE OF THE SOLUBLE GROWTH FACTOR
CC       FORM (BY SIMILARITY).
CC   -!- PTM: EXTENSIVE GLYCOSYLATION PRECEDES THE PROTEOLYTIC CLEAVAGE (BY
CC       SIMILARITY).
CC   -!- SIMILARITY: Contains 1 EGF-like domain.
CC   -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC   -!- SIMILARITY: BELONGS TO THE NEUREGULIN FAMILY.
DR   HSSP; Q12784; 1HRE.
DR   MGD; MGI:1098246; Nrg2.
DR   InterPro; IPR006209; EGF_like.
DR   InterPro; IPR006210; IEGF.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR002154; Neuregulin.
DR   Pfam; PF00008; EGF; 1.
DR   Pfam; PF00047; ig; 1.
DR   Pfam; PF02158; Neuregulin; 1.
DR   SMART; SM00181; EGF; 1.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS00022; EGF_1; 1.
DR   PROSITE; PS01186; EGF_2; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Growth factor; EGF-like domain; Immunoglobulin domain; Glycoprotein;
KW   Transmembrane; Multigene family; Alternative splicing.
FT   PROPEP        1     19       BY SIMILARITY.
FT   CHAIN        20    756       PRO-NEUREGULIN-2, MEMBRANE-BOUND FORM.
FT   CHAIN        20    314       NEUREGULIN-2.
FT   DOMAIN       20    315       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    316    336       INTERNAL SIGNAL SEQUENCE (POTENTIAL).
FT   DOMAIN      337    756       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN      145    240       IG-LIKE C2-TYPE.
FT   DOMAIN      238    248       SER/THR-RICH.
FT   DOMAIN      249    290       EGF-LIKE.
FT   DOMAIN      627    633       POLY-PRO.
FT   DISULFID    165    219       BY SIMILARITY.
FT   DISULFID    253    267       BY SIMILARITY.
FT   DISULFID    261    278       BY SIMILARITY.
FT   DISULFID    280    289       BY SIMILARITY.
FT   CARBOHYD     55     55       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    186    186       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    254    254       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    296    296       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARSPLIC    280    280       C -> G (in isoform NRG2-10).
FT                                /FTId=VSP_003460.
FT   VARSPLIC    281    756       Missing (in isoform NRG2-10).
FT                                /FTId=VSP_003461.
FT   VARSPLIC    282    330       VGYTGDRCQQFAMVNFSKHLGFELKEAEELYQKRVLTITGI
FT                                CVALLVVG -> NGFFGQRCLEKLPLRLYMPDPKQSVLWDT
FT                                PGTGVSSSQWSTSPSTLDLN (in isoform DON-1S).
FT                                /FTId=VSP_003462.
FT   VARSPLIC    331    756       Missing (in isoform DON-1S).
FT                                /FTId=VSP_003463.
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FT   VARSPLIC    282    307       VGYTGDRCQQFAMVNFSKHLGFELKE -> NGFFGQRCLEK
FT                                LPLRLYMPDPKQK (in isoform DON-1M).
FT                                /FTId=VSP_003464.
SQ   SEQUENCE   756 AA;  82213 MW;  51D85DC918BE678E CRC64;

  Query Match             11.0%;  Score 156;  DB 1;  Length 756;
  Best Local Similarity   27.7%;  Pred. No. 1.3e-05;
  Matches   56;  Conservative   24;  Mismatches   86;  Indels   36;  Gaps    8;

Qy         44 LGRSVSFVYYQQTLQGD--FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEE 101
              | |:  :::: :  :    ||     :| |   ||: : : ||  |   |   : : ::
Db         96 LERNQRYIFFLEPTEQPLVFKTAFAPVDPN--GKNI-KKEVGKILCTDCATRPKLKKMKS 152

Qy        102 DTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGS 161
              |  :                    |    |:|:  ||| | | |||||  |       |
Db        153 QTGEV------------------GEKQSLKCEAAAGNPQPSYRWFKDGKELNR-----S 188

Qy        162 QSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNI-----S 216
              :    |    |  ||||  |   | ||| ||| | :|     | |: |: ::      |
Db        189 RDIRIKYGNGRKNSRLQFNKVRVEDAGEYVCEAENILGKDTVRG-RLHVNSVSTTLSSWS 247

Qy        217 GIIAAVVVVALVISVCGLGVCY 238
              |       |    | | ||||
Db        248 GHARKCNETAKSYCVNG-GVCY 268


RESULT 15
NCM2_HUMAN
ID   NCM2_HUMAN     STANDARD;      PRT;   837 AA.
AC   O15394;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   15-SEP-2003 (Rel. 42, Last annotation update)
DE   Neural cell adhesion molecule 2 precursor (N-CAM 2).
GN   NCAM2 OR NCAM21.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=97369930; PubMed=9226371;
RA   Paoloni-Giacobino A., Chen H., Antonarakis S.E.;
RT   "Cloning of a novel human neural cell adhesion molecule gene (NCAM2)
RT   that maps to chromosome region 21q21 and is potentially involved in
RT   Down syndrome.";
RL   Genomics 43:43-51(1997).
CC   -!- FUNCTION: MAY PLAY IMPORTANT ROLES IN SELECTIVE FASCICULATION AND
CC       ZONE-TO-ZONE PROJECTION OF THE PRIMARY OLFACTORY AXONS.
CC   -!- SUBCELLULAR LOCATION: Type I membrane protein.
CC   -!- TISSUE SPECIFICITY: EXPRESSED MOST STRONGLY IN ADULT AND FETAL
CC       BRAIN.
CC   -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC   -!- SIMILARITY: Contains 5 immunoglobulin-like C2-type domains.
CC   -!- SIMILARITY: Contains 2 fibronectin type III domains.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U75330; AAB80803.1; -.
DR   Genew; HGNC:7657; NCAM2.
DR   MIM; 602040; -.
DR   GO; GO:0016021; C:integral to membrane; TAS.
DR   GO; GO:0005886; C:plasma membrane; TAS.
DR   GO; GO:0007158; P:neuronal cell adhesion; TAS.
DR   InterPro; IPR003961; FN_III.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00041; fn3; 2.
DR   Pfam; PF00047; ig; 5.
DR   SMART; SM00060; FN3; 2.
DR   SMART; SM00408; IGc2; 5.
DR   PROSITE; PS50835; IG_LIKE; 5.
KW   Cell adhesion; Transmembrane; Glycoprotein; Repeat;
KW   Immunoglobulin domain; Signal.
FT   SIGNAL        1     19       POTENTIAL.
FT   CHAIN        20    837       NEURAL CELL ADHESION MOLECULE 2.
FT   DOMAIN       20    697       EXTRACELLULAR (POTENTIAL).
FT   TRANSMEM    698    718       POTENTIAL.
FT   DOMAIN      719    837       CYTOPLASMIC (POTENTIAL).
FT   DOMAIN       21    108       IG-LIKE C2-TYPE 1.
FT   DOMAIN      113    202       IG-LIKE C2-TYPE 2.
FT   DOMAIN      208    297       IG-LIKE C2-TYPE 3.
FT   DOMAIN      302    396       IG-LIKE C2-TYPE 4.
FT   DOMAIN      401    491       IG-LIKE C2-TYPE 5.
FT   DOMAIN      482    581       FIBRONECTIN TYPE-III 1.
FT   DOMAIN      594    678       FIBRONECTIN TYPE-III 2.
FT   DISULFID     42     93       PROBABLE.
FT   DISULFID    136    186       PROBABLE.
FT   DISULFID    232    281       PROBABLE.
FT   DISULFID    322    380       PROBABLE.
FT   DISULFID    422    475       PROBABLE.
FT   CARBOHYD    177    177       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    219    219       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    309    309       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    406    406       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    419    419       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    445    445       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    474    474       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    562    562       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   837 AA;  92932 MW;  C3D034106C5741C1 CRC64;

  Query Match             11.0%;  Score 155.5;  DB 1;  Length 837;
  Best Local Similarity   26.6%;  Pred. No. 1.7e-05;
  Matches   41;  Conservative   30;  Mismatches   72;  Indels   11;  Gaps    4;

Qy         47 SVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVT 105
              :||::|: : :     ||  |: : |::| |: :|| | ||||    :   :  :  |
Db        145 AVSWLYHNEEVTTISDNRLAMLANNNLQILNINKSDEGIYRCEGRVEARGEIDFRDIIVI 204

Qy        106 LEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTN 165
              : |  | ::|     ::|  |  :   |:   |:| |  :||::| :|:|         |
Db        205 VNVPPAISMPQKSFNATAERGEEMTFSCR-ASGSPEPAISWFRNG-KLIEE--------N 254

Qy        166 SSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVG 199
                | :      |    :   | | | | | | |
Db        255 EKYILKGSNTELTVRNIINSDGGPYVCRATNKAG 288


Search completed: December  9, 2003, 17:11:46
Job time : 10.1359 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:08:46 ; Search time 29.8118 Seconds
(without alignments)
2389.068 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 1418
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 830525

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1159	81.7	298	11	Q9JI59	Q9ji59 mus musculu
2	1156	81.5	298	11	Q8CE95	Q8ce95 mus musculu
3	1156	81.5	298	11	Q8C5K9	Q8c5k9 mus musculu
4	487.5	34.4	310	11	Q9EPK4	Q9epk4 mus musculu
5	486.5	34.3	310	11	Q9D8B7	Q9d8b7 mus musculu
6	484.5	34.2	310	11	Q9D1M9	Q9d1m9 mus musculu
7	477.5	33.7	309	4	Q96FL1	Q96fl1 homo sapien
8	477.5	33.7	310	4	Q9BX67	Q9bx67 homo sapien
9	477.5	33.7	355	4	Q8WWL8	Q8wwl8 homo sapien
10	451.5	31.8	181	11	Q9CWD9	Q9cwd9 mus musculu
11	410	28.9	300	11	Q8VC39	Q8vc39 mus musculu
12	409.5	28.9	300	11	Q9JHY1	Q9jhy1 rattus norv
13	393.5	27.8	259	4	Q9Y5B2	Q9y5b2 homo sapien
14	315.5	22.2	173	11	Q9JKD5	Q9jkd5 rattus norv
15	225	15.9	335	13	Q9PWR4	Q9pwr4 gallus gall
16	224	15.8	318	13	Q91664	Q91664 xenopus lae
17	224	15.8	335	13	Q9YGH1	Q9ygh1 gallus gall
18	221	15.6	319	11	Q922D5	Q922d5 mus musculu
19	219	15.4	319	11	Q9JKA5	Q9jka5 mus musculu
20	219	15.4	335	13	Q9YGV5	Q9ygv5 gallus gall
21	217	15.3	181	13	Q91665	Q91665 xenopus lae
22	210	14.8	259	4	O95532	O95532 homo sapien
23	198	14.0	390	4	Q96T50	Q96t50 homo sapien
24	198	14.0	390	4	Q96AP7	Q96ap7 homo sapien
25	197	13.9	407	11	Q9D2J4	Q9d2j4 mus musculu
26	196	13.8	394	11	Q925F2	Q925f2 mus musculu
27	195	13.8	390	6	Q95KI3	Q95ki3 macaca fasc
28	194.5	13.7	319	6	Q9TU80	Q9tu80 canis famil
29	194	13.7	372	13	Q90Y50	Q90y50 brachydanio
30	190.5	13.4	344	4	Q9UKV4	Q9ukv4 homo sapien
31	190.5	13.4	365	6	Q8WMV3	Q8wmv3 bos taurus
32	188	13.3	430	4	Q8N4F1	Q8n4f1 homo sapien
33	186	13.1	773	5	Q8IRS5	Q8irs5 drosophila
34	183	12.9	300	11	Q9DA22	Q9da22 mus musculu
35	183	12.9	300	11	Q9D9J0	Q9d9j0 mus musculu
36	181	12.8	319	6	Q9TU79	Q9tu79 sus scrofa
37	180	12.7	352	11	Q91W66	Q91w66 mus musculu
38	180	12.7	365	11	Q9DBJ8	Q9dbj8 mus musculu
39	179.5	12.7	304	11	Q9CVA4	Q9cva4 mus musculu
40	179.5	12.7	323	4	Q8NDD2	Q8ndd2 homo sapien
41	177	12.5	284	4	Q9NX42	Q9nx42 homo sapien
42	177	12.5	325	4	O95791	O95791 homo sapien
43	177	12.5	327	4	Q96IQ7	Q96iq7 homo sapien
44	175.5	12.4	328	11	Q9Z109	Q9z109 mus musculu
45	174	12.3	344	11	Q9R067	Q9r067 rattus norv

ALIGNMENTS

RESULT 1
Q9JI59
ID Q9JI59 PRELIMINARY; PRT; 298 AA.
AC Q9JI59;
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE Vascular endothelial junction-associated molecule (Junctional adhesion
DE molecule-3) (2410030G21Rik protein).
GN JCAM3 OR JCAM2 OR JAM-3 OR 2410030G21RIK.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J;
RX MEDLINE=20317114; PubMed=10779521;
RA Palmeri D., van Zante A., Huang C.-C., Hemmerich S., Rosen S.D.;
RT "Vascular Endothelial Junction-associated Molecule, a Novel Member of
RT the Immunoglobulin Superfamily, Is Localized to Intercellular
RT Boundaries of Endothelial Cells.";
RL J. Biol. Chem. 275:19139-19145(2000).
RN [2]
RP SEQUENCE FROM N.A.
RX PubMed=11036763;
RA Aurrand-Lions M.A., Duncan L., Du Pasquier L., Imhof B.A.;
RT "Cloning of JAM-2 and JAM-3: an Emerging Junctional Adhesion Molecular
RT Family?";
RL Curr. Top. Microbiol. Immunol. 251:91-98(2000).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J; TISSUE=Embryo, and Embryonic stem cells;
RX MEDLINE=21085660; PubMed=11217851;
RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

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RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
DR   EMBL; AF255911; AAF81224.1; -.
DR   EMBL; AJ291757; CAC20699.1; -.
DR   EMBL; AK013914; BAB29053.1; -.
DR   EMBL; AK010616; BAB27064.1; -.
DR   MGD; MGI:1933820; Jcam2.
DR   MGD; MGI:1933825; Jcam3.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   PROSITE; PS50835; IG_LIKE; 2.
SQ   SEQUENCE   298 AA;  33047 MW;  1124E0F07E6CF751 CRC64;

  Query Match             81.7%;  Score 1159;  DB 11;  Length 298;
  Best Local Similarity   80.1%;  Pred. No. 6.5e-100;
  Matches  222;  Conservative   22;  Mismatches   31;  Indels    2;  Gaps    2;

Qy          1 YHKAYGFSAPKD-QQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQG 59
              |||| |||| || :| || : :|||||||||||||  |||||||:|: || ||||| |||
Db         23 YHKANGFSASKDHRQEVTVIEFQEAILACKTPKKTTSSRLEWKKVGQGVSLVYYQQALQG 82

Qy         60 DFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEV 119
              |||:|||||||||||||||||||:||||||||:||||||:|| | ||||||||||:|||
Db         83 DFKDRAEMIDFNIRIKNVTRSDAGEYRCEVSAPTEQGQNLQEDKVMLEVLVAPAVPACEV 142

Qy        120 PSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQF 179
              |:| ::|:|||||||||||||||||| ||||| || ||: |    |||||||||:| |||
Db        143 PTSVMTGSVVELRCQDKEGNPAPEYIWFKDGTSLLGNPK-GGTHNNSSYTMNTKSGILQF 201

Qy        180 NTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYA 239
              | :||:|:||| |||||||:|||||||||| |||||||| ||||| |||||||| |||
Db        202 NMISKMDSGEYYCEARNSVGHRRCPGKRMQVDVLNISGIIATVVVVAFVISVCGLGTCYA 261

Qy        240 QRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||| : :|| ||||||||||||||||
Db        262 QRKGYFSKETSFQKGSPASKVTTMSENDFKHTKSFII 298


RESULT 2
Q8CE95
ID   Q8CE95      PRELIMINARY;      PRT;   298 AA.
AC   Q8CE95;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junction cell adhesion molecule 2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Skin;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK028757; BAC26102.1; -.
SQ   SEQUENCE   298 AA;  33079 MW;  CB8227EC13D349A3 CRC64;

  Query Match             81.5%;  Score 1156;  DB 11;  Length 298;
  Best Local Similarity   79.8%;  Pred. No. 1.2e-99;
  Matches  221;  Conservative   23;  Mismatches   31;  Indels    2;  Gaps    2;

Qy          1 YHKAYGFSAPKD-QQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQG 59
              |||| |||| || :| || : :|||||||||||||  |||||||:|: || ||||| |||
Db         23 YHKANGFSASKDHRQEVTVIEFQEAILACKTPKKTTSSRLEWKKVGQGVSLVYYQQALQG 82

Qy         60 DFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEV 119
              |||:|||||||||||||||||||:||||||||:||||||:|| | ||||:|||||:|||
Db         83 DFKDRAEMIDFNIRIKNVTRSDAGEYRCEVSAPTEQGQNLQEDKVMLEVLMAPAVPACEV 142

Qy        120 PSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQF 179
              |:| ::|:|||||||||||||||||| ||||| || ||: |    |||||||||:| |||
Db        143 PTSVMTGSVVELRCQDKEGNPAPEYIWFKDGTSLLGNPK-GGTHNNSSYTMNTKSGILQF 201

Qy        180 NTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYA 239
              | :||:|:||| |||||||:|||||||||| |||||||| ||||| |||||||| |||
Db        202 NMISKMDSGEYYCEARNSVGHRRCPGKRMQVDVLNISGIIATVVVVAFVISVCGLGTCYA 261

Qy        240 QRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||| : :|| ||||||||||||||||
Db        262 QRKGYFSKETSFQKGSPASKVTTMSENDFKHTKSFII 298


RESULT 3
Q8C5K9
ID   Q8C5K9      PRELIMINARY;      PRT;   298 AA.
AC   Q8C5K9;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junction cell adhesion molecule 2.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Medulla oblongata;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK078128; BAC37139.1; -.
SQ   SEQUENCE   298 AA;  33182 MW;  1131F0BFD89CEB51 CRC64;

  Query Match             81.5%;  Score 1156;  DB 11;  Length 298;
  Best Local Similarity   80.1%;  Pred. No. 1.2e-99;
  Matches  222;  Conservative   22;  Mismatches   31;  Indels    2;  Gaps    2;

Qy          1 YHKAYGFSAPKD-QQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQG 59
              |||| |||| || :| || : :|||||||||||||  |||||||:|: || ||||| |||
Db         23 YHKANGFSASKDHRQEVTVIEFQEAILACKTPKKTTSSRLEWKKVGQGVSLVYYQQALQG 82

Qy         60 DFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEV 119
              |||:|||||||||||||||||||:||||||||:||||||:|| | ||||:|||||:|||
Db         83 DFKDRAEMIDFNIRIKNVTRSDAGEYRCEVSAPTEQGQNLQEDKVMLEVLVAPAVPACEV 142

Qy        120 PSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQF 179
              |:| ::|:|||||||||||||||||| ||||| || ||: |    |||||||||:| |||
Db        143 PTSVMTGSVVELRCQDKEGNPAPEYIWFKDGHSLLGNPK-GRTHNNSSYTMNTKSGILQF 201

Qy        180 NTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYA 239
              | :||:|:||| |||||||:|||||||||| |||||||| ||||| |||||||| |||
Db        202 NMISKMDSGEYYCEARNSVGHRRCPGKRMQVDVLNISGIIATVVVVAFVISVCGLGTCYA 261

Qy        240 QRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
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                ||||||||||||||| : :|| ||||||||||||||||
Db        262 QRKGYFSKETSFQKGSPASKVTTMSENDFKHTKSFII 298


RESULT 4
Q9EPK4
ID   Q9EPK4      PRELIMINARY;      PRT;   310 AA.
AC   Q9EPK4;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junctional adhesion molecule-2, JAM-2 (1110002N23Rik protein)
DE   (Junction cell adhesion molecule 3).
GN   JCAM3 OR JCAM2 OR JAM-2 OR 1110002N23RIK.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   PubMed=11036763;
RA   Aurrand-Lions M.A., Duncan L., Du Pasquier L., Imhof B.A.;
RT   "Cloning of JAM-2 and JAM-3: an Emerging Junctional Adhesion Molecular
RT   Family?";
RL   Curr. Top. Microbiol. Immunol. 251:91-98(2000).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Embryo;
RX   MEDLINE=21085660; PubMed=11217851;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Kidney;
RA   Strausberg R.;
RL   Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Mesonephros;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AJ300304; CAC20704.1; -.
DR   EMBL; AK013156; BAB28683.1; -.
DR   EMBL; BC024357; AAH24357.1; -.
DR   EMBL; AK032833; BAC28049.1; -.
DR   MGD; MGI:1933820; Jcam2.
DR   MGD; MGI:1933825; Jcam3.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain.
SQ   SEQUENCE   310 AA;  34837 MW;  4B92BCB51D0A4B0A CRC64;

  Query Match           34.4%;  Score 487.5;  DB 11;  Length 310;
  Best Local Similarity   39.1%;  Pred. No. 3.3e-37;
  Matches  104;  Conservative   55;  Mismatches   96;  Indels   11;  Gaps    6;

Qy         21 YQEAILAC-KTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNV 77
              ::   |:|  |  :|   |:||||:     ::||:   :|||   | ::    ::|| ||
Db         46 FESVELSCIITDSQTSDPRIEWKKIQDGQTTYVYFDNKIQGDLAGRTDVFGKTSLRIWNV 105

Qy         78 TRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKE 137
              ||||:  ||||| | ::: : ::| |: | | | |  | | :|::   |    |:||: |
Db        106 TRSDSAIYRCEVVALNDR-KEVDEITIELIVQVKPVTPVCRIPAAVPVGKTATLQCQESE 164

Qy        138 GNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNS 197
              | | |:|::: : |  : |   :  |||: :|::|||| || | | |:|:| | | |
Db        165 GYPRPHYSWYRNDVPLPTDSRANPRFQNSSFHVNSETGTLVFNAVHKDDSGQYYCIASND 224

Qy        198 VGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKE-----TS 250
               | || |: |:| ||||:|||  |:|| :|::|  :|:| | |:| |  ||:      |
Db        225 AGAARCEGQDMEVYDLNIAGIIGGVLVVLIVLAVITMGICCAYRRGCFISSKQDGESYKS 284

Qy        251 FQKSNSSSSKATTMSENDFKHTKSFII 276
              | :  :   |  | ||:|  ||:|
Db        285 PGKHDGVNYIRTSEEGDFRHKSSFVI 310


RESULT 5
Q9D8B7
ID   Q9D8B7      PRELIMINARY;      PRT;   310 AA.
AC   Q9D8B7;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   1110002N23Rik protein.
GN   JCAM3 OR JCAM2 OR 1110002N23RIK.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Small intestine;
RX   MEDLINE=21085660; PubMed=11217851;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
DR   EMBL; AK008187; BAB25519.1; -.
DR   MGD; MGI:1933820; Jcam2.
DR   MGD; MGI:1933825; Jcam3.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
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DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain.
SQ   SEQUENCE   310 AA;  34855 MW;  C74884EABE234680 CRC64;

  Query Match             34.3%;  Score 486.5;  DB 11;  Length 310;
  Best Local Similarity   39.1%;  Pred. No. 4.1e-37;
  Matches  104;  Conservative   54;  Mismatches   97;  Indels   11;  Gaps    6;

Qy         21 YQEAILAC-KTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNV 77
              ::   |:|  |  :|   |:||||:     ::||:   :|||   | ::    ::|| ||
Db         46 FESVELSCIITDSQTSDPRIEWKKIQDGQTTYVYFDNKIQGDLAGRTDVFGKTSLRIWNV 105

Qy         78 TRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKE 137
              ||||:  ||||| | ::: : ::| |: | | | |  | | :|::   |    |:||: |
Db        106 TRSDSAIYRCEVVALNDR-KEVDEITIELIVQVKPVTPVCRIPAAVPVGKTATLQCQESE 164

Qy        138 GNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNS 197
              | | | |::: : |  : |   :  |||: :|::|||| || | | |:|:| | | |
Db        165 GYPRPHYNWYRNDVPLPTDSRANPRFQNSSFHVNSETGTLVFNAVHKDDSGQYYCIASND 224

Qy        198 VGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKE-----TS 250
              |  || |: |:| ||||:|||  |:|| :|::|  :|:| | |:| |  ||:      |
Db        225 AGAARCEGQDMEVYDLNIAGIIGGVLVVLIVLAVITMGICCAYRRGCFISSKQDGESYKS 284

Qy        251 FQKSNSSSKATTMSENDFKHTKSFII 276
                | :  :   |  | ||:|  ||:|
Db        285 PGKHDGVNYIRTSEEGDFRHKSSFVI 310


RESULT 6
Q9D1M9
ID   Q9D1M9      PRELIMINARY;      PRT;   310 AA.
AC   Q9D1M9;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   1110002N23Rik protein.
GN   JCAM3 OR JCAM2 OR 1110002N23RIK.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Embryo;
RX   MEDLINE=21085660; PubMed=11217851;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
DR   EMBL; AK003326; BAB22715.1; -.
DR   MGD; MGI:1933820; Jcam2.
DR   MGD; MGI:1933825; Jcam3.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain.
SQ   SEQUENCE   310 AA;  34819 MW;  6692BCAD68EA4B1D CRC64;

  Query Match             34.2%;  Score 484.5;  DB 11;  Length 310;
  Best Local Similarity   39.1%;  Pred. No. 6.2e-37;
  Matches  104;  Conservative   55;  Mismatches   96;  Indels   11;  Gaps    6;

Qy         21 YQEAILAC-KTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNV 77
              ::   |:|  |  :|   |:||||:     ::||:   :|||   | ::    ::|| ||
Db         46 FESVELSCIITDSQTSDPRIEWKKIQDGQTTYVYFDNKIQGDLAGRTDVFGKTSLRIWNV 105

Qy         78 TRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKE 137
              ||||:  ||||| | ::: : ::| |: | | | |  | | :|::   |    |:||: |
Db        106 TRSDSAIYRCEVVALNDR-KEVDEITIELIVQVKPVTPVCRIPAAVPVGKTATLQCQESE 164

Qy        138 GNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNS 197
              | | | |:|::: : |  : |   :  |||: :|::|||| || | | |:|:| | | |
Db        165 GYPRPHYSWYRNDVPLPTDSRANPRFQNSSFHVNSETGTLVFNAVHKDDSGQYYCIASND 224

Qy        198 VGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKE-----TS 250
              |  || |: |:| ||||:|||  |:|| :|::|  :|:| | |:| |  ||:      |
Db        225 AGAARCEGQDMEVYDLNIAGIIGGVLVVLIVLAVITMGICCAYRRGCFISSKQDGESYKS 284

Qy        251 FQKSNSSSKATTMSENDFKHTKSFII 276
                | :  :   |  | ||||  :|:|
Db        285 PGKHDGVNYIRTSEEGDFKHKIAFVI 310


RESULT 7
Q96FL1
ID   Q96FL1      PRELIMINARY;      PRT;   309 AA.
AC   Q96FL1;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Hypothetical protein (Fragment).
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Eye;
RA   Strausberg R.;
RL   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC010690; AAH10690.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Hypothetical protein; Immunoglobulin domain.
FT   NON_TER      1      1
SQ   SEQUENCE   309 AA;  34917 MW;  50C5B1B7872E8DF3 CRC64;

  Query Match             33.7%;  Score 477.5;  DB 4;  Length 309;
  Best Local Similarity   38.0%;  Pred. No. 2.8e-36;
  Matches  101;  Conservative   57;  Mismatches   97;  Indels   11;  Gaps    7;

Qy         21 YQEAILAC-KTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNV 77
              ::   |:|  |  :|   |:||||:     ::|::   :|||   |||::   :::| ||
Db         45 FESVELSCIITDSQTSDPRIEWKKIQDEQTTYVFFDNKIQGDLAGRAEILGKTSLKIWNV 104

Qy         78 TRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKE 137
              || |:  ||||| | ::: : ::|  : | | | |  | | || :   | :  | ||: |
Db        105 TRRDSALYRCEVVARNDR-KEIDEIVIELTVRVKPVTPVCRVPKAVPVGKMATLHCQESE 163

Qy        138 GNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNS 197
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                |:| | |:|::: : |  : |   :  |||: :|::|||| |  | | |:|:| | | |
Db        164 GHPRPHYSWYRNDVPLPTDSRANPRFRNSSFHLNSETGTLVFTAVHKDDSGQYYCIASND 223

Qy        198 VGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKE--TSFQ- 252
                |  ||  : |:| |||| ||| |:||  |::: ||:| | |:||| :|:  |::
Db        224 AGSARCEEQEMEVYDLNIGGIIGGVLVVLAVLALITLGICCAYRRGYFINNKQDGESYKN 283

Qy        253 --KSNSSSKATTMSENDFKHTKSFII 276
                | :  :   |  | ||:|  ||:|
Db        284 PGKPDGVNYIRTDEEGDFRHKSSFVI 309


RESULT 8
Q9BX67
ID   Q9BX67      PRELIMINARY;      PRT;   310 AA.
AC   Q9BX67;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junctional adhesion molecule 3 precursor (Junctional adhesion
DE   molecule-2) (Junctional adhesional molecule-3) (Hypothetical protein
DE   FLJ90288) (Hypothetical protein FLJ90828).
GN   JAM-2 OR JAM3.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RA   Cunningham S.A., Arrate M.P., Tran T.M.;
RT   "Cloning of Human Junctional Adhesion Molecule 3.";
RL   Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RA   Aurrand-Lions M.A., Johnson-leger C., Wong C., DuPasquier L.;
RT   "Heterogeneity of endothelial junctions is reflected by differential
RT   expression and specific subcellular localization of the three JAM
RT   family members.";
RL   Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A.
RA   Aurrand-Lions M.A., Johnson-leger C., Lamagna C., Ozaki H., Kita T.;
RT   "Junctional adhesion molecules (JAMs) and interendothelial
RT   junctions.";
RL   Submitted (AUG-2001) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   SEQUENCE FROM N.A.
RA   Sachs U.J.H., Eva O., Berghoefer H., Santoso S.;
RT   "Characterization of Junctional Adhesional Molecule-3 on Human
RT   Platelets: A New Member of Immunoglobulin Superfamily.";
RL   Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
RN   [5]
RP   SEQUENCE FROM N.A.
RA   Isogai T., Ota T., Nishikawa T., Hayashi K., Otsuki T., Sugiyama T.,
RA   Suzuki Y., Nagai K., Sugano S., Ishii S., Kawai-Hio Y., Saito K.,
RA   Yamamoto J., Wakamatsu A., Nakamura Y., Kojima S., Nagahari K.,
RA   Masuho Y., Ono T., Okano K., Yoshikawa Y., Aotsuka S., Sasaki N.,
RA   Hattori A., Okumura K., Iwayanagi T., Ninomiya K.;
RT   "NEDO human cDNA sequencing project.";
RL   Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF356518; AAK27221.1; -.
DR   EMBL; AJ344431; CAC69845.1; -.
DR   EMBL; AF448478; AAM20925.1; -.
DR   EMBL; AK074769; BAC11195.1; -.
DR   EMBL; AK075309; BAC11538.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Hypothetical protein; Signal.
FT   SIGNAL        1     30       POTENTIAL.
SQ   SEQUENCE   310 AA;  35020 MW;  CE39ADF33EA1DAB9 CRC64;
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  Query Match           33.7%;  Score 477.5;  DB 4;  Length 310;
  Best Local Similarity  38.0%;  Pred. No. 2.8e-36;
  Matches  101;  Conservative   57;  Mismatches   97;  Indels   11;  Gaps    7;

Qy         21 YQEAILAC-KTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNV 77
              ::   |:|  |  :|   |:|||||:     ::|::   :|||   |||::   :::| ||
Db         46 FESVELSCIITDSQTSDPRIEWKKIQDEQTTYVFFDNKIQGDLAGRAEILGKTSLKIWNV 105

Qy         78 TRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKE 137
              || |:  ||||| | ::: : ::|  : | | | |  | | || :   | :  | ||: |
Db        106 TRRDSALYRCEVVARNDR-KEIDEIVIELTVQVKPVTPVCRVPKAVPVGKMATLHCQESE 164

Qy        138 GNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNS 197
              |:| | |:|::: : |  : |   :  |||: :|::|||| |  | | |:|:| | | |
Db        165 GHPRPHYSWYRNDVPLPTDSRANPRFRNSSFHLNSETGTLVFTAVHKDDSGQYYCIASND 224

Qy        198 VGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKE--TSFQ- 252
              |  ||  : |:| |||| ||| |:||  |::: ||:| | |:||| :|:  |::
Db        225 AGSARCEEQEMEVYDLNIGGIIGGVLVVLAVLALITLGICCAYRRGYFINNKQDGESYKN 284

Qy        253 --KSNSSSKATTMSENDFKHTKSFII 276
                | :  :   |  | ||:|  ||:|
Db        285 PGKPDGVNYIRTDEEGDFRHKSSFVI 310


RESULT 9
Q8WWL8
ID   Q8WWL8      PRELIMINARY;      PRT;   355 AA.
AC   Q8WWL8;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junction adhesion molecule 3.
GN   JAM3.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Hearn T.;
RL   Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RA   Phillips H.M.;
RT   "Narrowing the critical region within 11q24-qter for hypoplastic left
RT   heart and identification of a candidate gene, JAM3, expressed during
RT   cardiogenesis.";
RL   Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ416101; CAC94776.1; -.
DR   Genew; HGNC:15532; JAM3.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Immunoglobulin domain.
FT   CHAIN        76    355       JUNCTION ADHESION MOLECULE 3.
SQ   SEQUENCE   355 AA;  39602 MW;  8B1577DEA7B1D4F8 CRC64;

  Query Match           33.7%;  Score 477.5;  DB 4;  Length 355;
  Best Local Similarity  38.0%;  Pred. No. 3.4e-36;
  Matches  101;  Conservative   57;  Mismatches   97;  Indels   11;  Gaps    7;

Qy         21 YQEAILAC-KTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRAEMI-DFNIRIKNV 77
              ::   |:|  |  :|   |:|||||:     ::|::   :|||   |||::   :::| ||
Db         91 FESVELSCIITDSQTSDPRIEWKKIQDEQTTYVFFDNKIQGDLAGRAEILGKTSLKIWNV 150

Qy         78 TRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKE 137
              || |:  ||||| | ::: : ::|  : | | | |  | | || :   | :  | ||: |
Db        151 TRRDSALYRCEVVARNDR-KEIDEIVIELTVQVKPVTPVCRVPKAVPVGKMATLHCQESE 209
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Qy        138 GNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNS 197
              |:| | |:|::: : |  : |   :  |||: :|:|:|||| |  | | |:|:| | | |
Db        210 GHPRPHYSWYRNDVPLPTDSRANPRFRNSSFHLNSETGTLVFTAVHKDDSGQYYCIASND 269

Qy        198 VGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKGYF--SKE--TSFQ- 252
              |  ||  : |:| |||| |||  |:||  |:::  ||:| | |:|||  :|:  |::
Db        270 AGSARCEEQEMEVYDLNIGGIIGGVLVVLAVLALITLGICCAYRRGYFINNKQDGESYKN 329

Qy        253 --KSNSSSKATTMSENDFKHTKSFII 276
                | :  :   |  | ||:|  ||:|
Db        330 PGKPDGVNYIRTDEEGDFRHKSSFVI 355


RESULT 10
Q9CWD9
ID   Q9CWD9      PRELIMINARY;      PRT;   181 AA.
AC   Q9CWD9;
DT   01-JUN-2001 (TrEMBLrel. 17, Created)
DT   01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   2410167M24Rik protein (Junction cell adhesion molecule 2).
GN   JCAM2 OR 2410167M24RIK.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Embryonic stem cells;
RX   MEDLINE=21085660; PubMed=11217851;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK010826; BAB27208.1; -.
DR   EMBL; AK045095; BAC32219.1; -.
DR   MGD; MGI:1933820; Jcam2.
DR   InterPro; IPR003599; Ig.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00409; IG; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
SQ   SEQUENCE   181 AA;  20330 MW;  603B6114FBB11AEB CRC64;

  Query Match             31.8%;  Score 451.5;  DB 11;  Length 181;
  Best Local Similarity   80.0%;  Pred. No. 3.6e-34;
  Matches   88;  Conservative    9;  Mismatches   12;  Indels    1;  Gaps    1;

Qy          1 YHKAYGFSAPKD-QQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQG 59
              |||| |||| || :| || : :|||||||||||||  |||||||:|: || |||| |||
Db         23 YHKANGFSASKDHRQEVTVIEFQEAILACKTPKKTTSSRLEWKKVGQGVSLVYYQQALQG 82

Qy         60 DFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVL 109
              |||:|||||||||||||||||||:||||||||:||||||:|| | ||||
Db         83 DFKDRAEMIDFNIRIKNVTRSDAGEYRCEVSAPTEQGQNLQEDKVMLEVL 132


RESULT 11
Q8VC39
ID   Q8VC39      PRELIMINARY;      PRT;   300 AA.
AC   Q8VC39;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Hypothetical protein (Junction cell adhesion molecule1).
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Breast tumor;
RA   Strausberg R.;
RL   Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Cecum;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; BC021876; AAH21876.1; -.
DR   EMBL; AK033574; BAC28369.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Hypothetical protein.
SQ   SEQUENCE   300 AA;  32423 MW;  3CE561E8FF3B97EC CRC64;

  Query Match             28.9%;  Score 410;  DB 11;  Length 300;
  Best Local Similarity   35.9%;  Pred. No. 5.4e-30;
  Matches   99;  Conservative   49;  Mismatches  116;  Indels   12;  Gaps    6;

Qy          7 FSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNRA 65
              ::|  | ||       |:|     |       |:||| : | : : | |    :   : :|
Db         31 YTAQSDVQVPE----NESIKLTCTYSGFSSPRVEWKFVQGSTTALVCYNSQITAPYADRV 86

Qy         66 EMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSALS 125
                 |   :||| | |:| | ||   | |||  | :: | ||| |: |:  |||| .
Db         87 TFSSSGITFSSVTRKDNGEYTCMVS--EEGGQNYGEVSIHLTVLVPPSKPTISVPSSVTI 144

Qy        126 GTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQS-TNSSYTMNTKTGTLQFNTVSK 184
              |    | | : :|:|  ||:|||||| :|      :::  |||:|:: |:| | |: |:
Db        145 GNRAVLTCSEHDGSPPSEYSWFKDGISMLTADAKKTRAFMNSSFTIDPKSGDLIFDPVTA 204

Qy        185 LDTGEYSCEARNSVG-YRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRKG 243
              |:||| |:|:|  |   |      |   :||: ||:|||:|  ::: :   || :|  :|
Db        205 FDSGEYYCQAQNGYGTAMRSEAAHMDAVELNVGGIVAAVLVTLILLGLLIFGVWFAYSRG 264

Qy        244 YF---SKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||    | |:  |     |: :| || :|| | ||::
Db        265 YFERTKKGTAPGKKVIYSQPSTRSEGEFKQTSSFLV 300
```

```
RESULT 12
Q9JHY1
ID   Q9JHY1      PRELIMINARY;      PRT;   300 AA.
AC   Q9JHY1;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junctional adhesion molecule JAM.
GN   JAM.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague Dawley;
RA   Mashima H., Kojima I.;
RL   Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF276998; AAF78250.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
SQ   SEQUENCE   300 AA;  32369 MW;  45AE362A96158BFA CRC64;

  Query Match             28.9%;  Score 409.5;  DB 11;  Length 300;
  Best Local Similarity   34.3%;  Pred. No. 6e-30;
  Matches   95;  Conservative   49;  Mismatches   98;  Indels   35;  Gaps    6;

Qy          6 GFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKL-GRSVSFVYYQQTLQGDFKNR 64
              |||:|                              |:||| : | : : | |    :   : :|
Db         53 GFSSP--------------------------RVEWKFVQGSTTALVCYNNQITVPYADR 85

Qy         65 AEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVPSSAL 124
                 |   :||| | |:| | ||   : |||  | :: | ||| |: |:  :|||
Db         86 VTFSSSGITFSSVTRKDNGEYTCMVS--EDGGQNYGEVSIHLTVLVPPSKPTVSIPSSVT 143

Qy        125 SGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQS-TNSSYTMNTKTGTLQFNTVS 183
               |    | | : :|:|  ||:|||||: :|      :::  |||||:: |:| | |: ||
Db        144 IGNRAVLTCSEHDGSPPSEYSWFKDGVPMLTADAKKTRAFINSSYTIDPKSGDLVFDPVS 203

Qy        184 KLDTGEYSCEARNSVG-YRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQRK 242
              |:||| |||:|  |   |    ||:  :||: ||:|||:|  ::: :   |: :|  :
Db        204 AFDSGEYYCEAQNGYGTAMRSEAVRMEAVELNVGGIVAAVLVTLILLGLLIFGIWFAYSR 263

Qy        243 GYF---SKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||    | |:  |    |: :  || :|| | ||::
Db        264 GYFERTKKGTAPGKKVIYSQPSARSEGEFKQTSSFLV 300


RESULT 13
Q9Y5B2
ID   Q9Y5B2      PRELIMINARY;      PRT;   259 AA.
AC   Q9Y5B2;
DT   01-NOV-1999 (TrEMBLrel. 12, Created)
DT   01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junction adhesion molecule.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Liu Y., Nusrat A., Schnell F.J., Walsh S., Reaves T.A., Pochet M.,
RA   Foley C., Parkos C.A.;
RT   "Human junctional adhesion molecule is expressed by polarized columnar
RT   epithelia and regulates tight junction resealing.";
RL   Submitted (MAY-1999) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF154005; AAD43794.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin domain.
SQ   SEQUENCE   259 AA;  28122 MW;  FE38521A911582D0 CRC64;

  Query Match             27.8%;  Score 393.5;  DB 4;  Length 259;
  Best Local Similarity   36.9%;  Pred. No. 1.5e-28;
  Matches   87;  Conservative   41;  Mismatches   97;  Indels   11;  Gaps    4;

Qy         47 SVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTL 106
              | ::  :       :::|   :   |  |:||| | | | | |    | | :  |  | |
Db         29 SCAYSGFSSPRAASYEDRVTFLPTGITFKSVTREDTGTYTCMVF--EEGGNSYGEVKVKL 86

Qy        107 EVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNS 166
              ||| |: |:  :|||  |    | | :::|:|  |||||||| :  ||:     :||
Db         87 IVLVPPSKPTVNIPSSATIGNRAVLTCSEQDGSPPSEYTWFKDGIVMPTNPKSTRAFSNS 146

Qy        167 SYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGK-RMQVDDLNISGIIAAVVVV 225
              || :|  || | |: :|  ||||||||||  |      ||:  : |:  |:|||:|
Db        147 SYVLNPTTGELVFDPLSASDTGEYSCEARNGYGTPMTSNAVRMEAVERNVGVIVAAVLVT 206

Qy        226 ALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKA-----TTMSENDFKHTKSFII 276
              ::: :   |: :|  :|:| :    :|  || |      :  || :|| | ||::
Db        207 LILLGILVFGIWFAYSRGHFDRT---KKGTSSKKVIYSQPSARSEGEFKQTSSFLV 259


RESULT 14
Q9JKD5
ID   Q9JKD5      PRELIMINARY;      PRT;   173 AA.
AC   Q9JKD5;
DT   01-OCT-2000 (TrEMBLrel. 15, Created)
DT   01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   Junctional adhesion molecule (Fragment).
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Kirsch T., Wellner M., Haller H., Lippoldt A.;
RT   "Cloning of the rat junctional adhesion molecule (JAM).";
RL   Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF241261; AAF61729.1; -.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003598; Ig_c2.
DR   InterPro; IPR003006; Ig_MHC.
DR   Pfam; PF00047; ig; 1.
DR   SMART; SM00408; IGc2; 1.
DR   PROSITE; PS50835; IG_LIKE; 1.
KW   Immunoglobulin domain.
FT   NON_TER       1       1
SQ   SEQUENCE   173 AA;  18706 MW;  3EE3ECDFA5AFB8B2 CRC64;

  Query Match             22.2%;  Score 315.5;  DB 11;  Length 173;
  Best Local Similarity   38.7%;  Pred. No. 1.7e-21;
  Matches   67;  Conservative   36;  Mismatches   65;  Indels    5;  Gaps    3;

Qy        109 LVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQS-TNSS 167
              || |: |:  :|||   |    | | : :|:|  ||:|||||: :|      ::  |||
Db          1 LVPPSKPTVSIPSSVTIGNRAVLTCSEHDGSPPSEYSWFKDGVPMLTADAKKTRAFINSS 60

Qy        168 YTMNTKTGTLQFNTVSKLDTGEYSCEARNSVG-YRRCPGKRMQVDDLNISGIIAAVVVVA 226
              ||:: |:| | |: ||  |:||| |||:|  |   |    ||:  :||: ||:|||:|
Db         61 YTIDPKSGDLVFDPVSAFDSGEYYCEAQNGYGTAMRSEAVRMEAVELNVGGIVAAVLVTL 120

Qy        227 LVISVCGLGVCYAQRKGYF---SKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ::: :   |: :|  :|||    | |:  |    |: :  || :|| | ||::
Db        121 ILLGLLIFGIWFAYSRGYFERTKKGTAPGKKVIYSQPSARSEGEFKQTSSFLV 173
```

```
RESULT 15
Q9PWR4
ID   Q9PWR4      PRELIMINARY;      PRT;   335 AA.
AC   Q9PWR4;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE   ChT1 thymocyte antigen precursor.
GN   CHT1.
OS   Gallus gallus (Chicken).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC   Gallus.
OX   NCBI_TaxID=9031;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=H.B19; TISSUE=Thymus;
RA   Katevuo K.H., Boyd R., Gobel T.T., Bean A., Dunon D., Imhof B.A.,
RA   Vainio O.;
RT   "ChT1, a new IgSF member inhibits thymocyte differentiation at the
RT   double positive stage.";
RL   Submitted (JUN-1997) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; Y14064; CAA74391.1; -.
DR   HSSP; P06907; 1NEU.
DR   InterPro; IPR007110; Ig-like.
DR   InterPro; IPR003006; Ig_MHC.
DR   InterPro; IPR003596; Ig_v.
DR   Pfam; PF00047; ig; 2.
DR   SMART; SM00406; IGv; 1.
DR   PROSITE; PS50835; IG_LIKE; 2.
KW   Signal.
FT   SIGNAL        1     21       POTENTIAL.
FT   CHAIN        22    335       CHT1 THYMOCYTE ANTIGEN.
SQ   SEQUENCE   335 AA;  36509 MW;  AA6159598079B438 CRC64;

  Query Match             15.9%;  Score 225;  DB 13;  Length 335;
  Best Local Similarity   24.1%;  Pred. No. 1.2e-12;
  Matches   75;  Conservative   45;  Mismatches  101;  Indels   90;  Gaps   10;

Qy          5 YGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGDFKNR 64
              : | : |: |: |   | |                     |:| |:        |:||:|
Db         58 WSFYSAKESQLHTIYYYSE--------------------GQSYSY--------GEFKDR 88

Qy         65 AEMI----DFNIRIKNVTRSDAGKYRCEVSAPSEQ-GQNLEEDTVTLEVLVAPAVPSCEV 119
                  : :| | |:  || | | ||| :| :  ||:  : :| : ||| |: | |::
Db         89 ITAATSPGNASITISNMQPSDTGSYTCEVFSPQDDAGQS--QKSVIVNVLVKPSKPFCKI 146

Qy        120 PSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQF 179
               :   | :: | |:  :| | | | |:|     |          |  :   |  || |
Db        147 EGTPEKGHLIYLLCKCDQGLPHPTYRWYKVDENTL---------TPVTEYFNPDTGILYI 197

Qy        180 NTVSKLDTGEYSCEARNSVGYRRCPGKRMQVD------DLNI--SGIIAAVVVVALVISV 231
              ::  :|| | | | | :|   |     ::|      | ||    :| |::   :: ::
Db        198 GNLTTFETGHYRCIASNIMGNSTC-----ELDLTSMHSDGNIVAGALIGAILAAVIICAI 252

Qy        232 CGLGVCYAQRKGYFSKE-------------------------------TSFQKSNSSSK 259
              :    |::|   | |                                 |: | |   :
Db        253 VWVLTKKAKKKKSSSNEMQVMAQKQSNAEYAQVPNEENTPATAVLPSNATNEQPSADEAA 312

Qy        260 ATTMSENDFKH 270
              |    ||| ||
Db        313 APETPENDEKH 323


Search completed: December  9, 2003, 17:13:00
Job time : 29.8118 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:26:03 ; Search time 41.3519 Seconds
(without alignments)
1059.408 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 276
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 1107863 seqs, 158726573 residues

Word size: 30

Total number of hits satisfying chosen parameters: 40

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : A_Geneseq_19Jun03:*
1: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
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6: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1985.DAT:*
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10: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
11: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1990.DAT:*
12: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
13: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1992.DAT:*
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23: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
24: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2003.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	274	99.3	298	19	AAW75220	Human secreted pro
2	274	99.3	298	23	AAE26983	Human gene 25 enco
3	274	99.3	298	23	AAE27121	Human gene 25 enco
4	274	99.3	298	24	ABR47926	Human secreted pro
5	274	99.3	298	24	ABU64994	Human secreted pro
6	274	99.3	298	24	ABR00172	Human gene 162 enc
7	240	87.0	298	19	AAW85457	Secreted protein e
8	240	87.0	298	22	AAU00512	Human junctional a
9	240	87.0	298	23	ABP61801	Human polypeptide
10	240	87.0	298	24	AAO16452	Human junctional a
11	230	83.3	312	20	AAY08060	Human PRO245 prote
12	230	83.3	312	20	AAY23324	A33 related antige
13	230	83.3	312	20	AAY13354	Amino acid sequenc
14	230	83.3	312	21	AAB33421	Human PRO245 prote
15	230	83.3	312	21	AAB24401	Human PRO245 prote
16	230	83.3	312	21	AAY70668	Human PRO245 prote
17	230	83.3	312	22	AAU12339	Human PRO245 polyp
18	230	83.3	312	22	AAU00821	Human immune respo
19	230	83.3	312	22	AAB80222	Human PRO245 prote
20	230	83.3	312	22	AAB50904	Human PRO245 prote
21	230	83.3	312	22	AAB53081	Human angiogenesis
22	230	83.3	312	24	ABU69632	Novel human secret
23	230	83.3	312	24	ABU71455	Human PRO polypept
24	230	83.3	312	24	ABU71901	Human secreted/tra
25	230	83.3	312	24	ABU07738	Human A-33 related
26	230	83.3	312	24	ABU66737	Human PRO polypept
27	230	83.3	312	24	ABU67013	Human secreted/tra
28	230	83.3	312	24	ABU67355	Human secreted pro
29	230	83.3	312	24	ABU59818	Novel secreted and
30	230	83.3	312	24	ABU64509	Human secreted/tra
31	230	83.3	312	24	ABU54357	Human secreted/tra
32	222	80.4	222	22	AAM41947	Human polypeptide
33	215	77.9	215	22	AAB70500	Angiogenesis prote
34	183	66.3	213	21	AAB27277	Human confluency r
35	166	60.1	303	22	AAM23693	Human EST encoded
36	107	38.8	107	22	AAM40161	Human polypeptide
37	89	32.2	388	22	ABG22341	Novel human diagno
38	73	26.4	140	22	ABG22338	Novel human diagno
39	69	25.0	69	22	ABG22339	Novel human diagno
40	51	18.5	66	22	ABG22340	Novel human diagno

ALIGNMENTS

RESULT 1
AAW75220
ID AAW75220 standard; Protein; 298 AA.
XX
AC AAW75220;
XX
DT 29-JAN-1999 (first entry)
XX
DE Human secreted protein encoded by gene 25 clone HTEEB42.
XX
KW Human; secreted protein; fusion protein; gene therapy, protein therapy;
KW diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia;
KW developmental abnormality; foetal deficiency; blood; allergy; renal;
KW immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;
KW inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS;
KW cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;
KW osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;
KW endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 42
FT /label= unknown
FT Misc-difference 58
FT /label= unknown
XX
PN WO9840483-A2.
XX
PD 17-SEP-1998.
XX
PF 12-MAR-1998; 98WO-US04858.
XX
PR 19-DEC-1997; 97US-0068368.
PR 14-MAR-1997; 97US-0040710.
PR 14-MAR-1997; 97US-0040762.
PR 30-MAY-1997; 97US-0048100.

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PR   30-MAY-1997;   97US-0048189.
PR   30-MAY-1997;   97US-0048357.
PR   30-MAY-1997;   97US-0050934.
PR   06-JUN-1997;   97US-0048970.
PR   05-SEP-1997;   97US-0057765.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Ferrie AM,  Fischer CL,  Gentz RL,  Greene JM,  Kyaw H;
PI   Li H,  Li Y,  Moore PA, Rosen CA,  Ruben SM,  Soppet DR;
PI   Wei YF,  Young PE,  Zeng Z;
XX
DR   WPI; 1998-520811/44.
DR   N-PSDB; AAV34310.
XX
PT   Isolated human poly:nucleotide(s) encoding secretory peptide(s) -
PT   used to develop products for the diagnosis and treatment of e.g.
PT   inflammation, cancers, CNS disorders or immune system disorders
XX
PS   Claim 1; Page 168-169; 201pp; English.
XX
CC   This sequence represents a secreted human protein encoded by the gene
CC   clone detailed in the descriptor line.  The gene can be used to generate
CC   fusion proteins by linking to the gene to a human immunoglobulin Fc
CC   portion (e.g. AAV34277) for increasing the stability of the fused
CC   protein as compared to the human protein only.
CC   The invention relates to 28 novel genes and their fragments (nucleic
CC   acid sequences: AAV34286-V34325; amino acid sequences AAW75196-W75235)
CC   which are useful for preventing, treating or ameliorating  medical
CC   conditions e.g. by protein or gene therapy.  Also, pathological
CC   conditions can be diagnosed by determining the amount of the new
CC   polypeptides in a sample or by determining the presence of mutations in
CC   the new polynucleotides. Specific uses are described for each of the 28
CC   polynucleotides, based on which tissues they are most highly expressed in
CC   (see AAV34286 for described uses).
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 274;  DB 19;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 2
AAE26983
ID   AAE26983 standard; Protein; 298 AA.
XX
AC   AAE26983;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; immunodeficiency; X-linked agammaglobulinaemia; septic shock;
KW   autoimmune disorder; rheumatoid arthritis; multiple sclerosis; cancer;
KW   Grave's disease; diabetes mellitus; haematopoietic disorder; stroke;
KW   respiratory disorder; asthma; allergy; gastrointestinal disorder;
KW   inflammatory bowel disease; neurodegenerative disorder; hepatitis;
KW   Parkinson's disease; Alzheimer's disease; cardiovascular disorder;
KW   atherosclerosis; myocarditis; renal disorder; fungicide; virucide;
KW   hyperproliferative disorder; acute glomerulonephritis; tonsilitis;
KW   respiratory disorder; rhinitis; sinusitis; neurological disease;
KW   endocrine disorder; Addison's disease; reproductive system disorder;
KW   endometriosis; vasotropic; vulnerary; cytostatic; nootropic; cardiant;
KW   anti-HIV; tranquilliser; gout; antiparasitic.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Human mature secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002077287-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0852659.
XX
PR   11-SEP-1998;   98US-0152060.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-598780/64.
DR   N-PSDB; AAD44660.
XX
PT   Novel human secreted polypeptides and polynucleotides for diagnosing,
PT   preventing, treating immune, hyperproliferative, cardiovascular,
PT   neurological, reproductive disorders and identifying modulators of
PT   therapeutic use  -
XX
PS   Claim 11; Page 186; 209pp; English.
XX
CC   AAD44636-AAD44676 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE26959-AAE26999 represent the proteins they encode.
CC   AAE27000-AAE27025 represent human secreted protein fragments or their
CC   variants. The secreted proteins and genes are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Specific uses are described for each of the 28 genes, based
CC   on the tissues in which they are most highly expressed and include
CC   developing products for the diagnosis or treatment of immunodeficiencies,
CC   e.g., X-linked agammaglobulinaemia, B cell immunodeficiencies, severe
CC   combined immunodeficiencies, autoimmune disorders e.g., systemic lupus
CC   erythematosus, rheumatoid arthritis, multiple sclerosis, autoimmune
CC   thyroiditis, autoimmune haemolytic anaemia, Goodpasture's syndrome,
CC   Grave's disease, diabetes mellitus, dermatitis, inflammatory conditions
```

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CC   including septic shock, sepsis, reperfusion injury, inflammatory bowel
CC   disease, Crohn's disease, haematopoietic disorders, respiratory
CC   disorders e.g., asthma and allergy, gastrointestinal disorders e.g.,
CC   inflammatory bowel disease), cancers e.g., gastric, ovarian, lung,
CC   liver, bladder and breast), central nervous system (CNS) disorders e.g.,
CC   ischaemic brain injury and/or stroke, neurodegenerative disorders e.g.,
CC   Parkinson's disease and Alzheimer's disease, AIDS-related dementia and
CC   prion disease, cardiovascular disorders e.g., myocarditis, arrhythmias,
CC   atherosclerosis, inflammatory disorders e.g., hepatitis, gout, trauma,
CC   pancreatitis, sarcoidosis and allogenic transplant rejection, blood-
CC   related disorder (thrombosis, arterial thrombosis, atherosclerosis),
CC   hyperproliferative disorders, respiratory disorders e.g. rhinitis,
CC   sinusitis, tonsilitis, lung cancer, allergic disorders, pneumonitis,
CC   renal disorders. e.g. acute glomerulonephritis, neurological diseases,
CC   liver disorders, endocrine disorders e.g., hyperthyroidism, Addison's
CC   disease, hyperpituitarism, infectious diseases and reproductive system
CC   disorders e.g. endometriosis. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 274;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 3
AAE27121
ID   AAE27121 standard; Protein; 298 AA.
XX
AC   AAE27121;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; secreted protein; autoimmune disease; hyperproliferative disorder;
KW   rheumatoid arthritis; neoplasm; cerebrovascular disorder; angiogenesis;
KW   cerebral ischaemia; cardiovascular disorder; nervous system disorder;
KW   cardiac arrest; Alzheimer's disease; ocular disorder; wound healing;
KW   infection; corneal infection; skin aging; food additive; preservative;
KW   tissue regeneration; immunosuppressive; antiproliferative; cytostatic;
KW   cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective;
KW   antibacterial; virucide; fungicide; ophthalmological; gene therapy;
KW   vulnerary.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Mature human secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002076756-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0853161.
XX
PR   02-FEB-2001; 2001US-265583P.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
PA   (MOOR/) MOORE P A.
PA   (YOUN/) YOUNG P E.
PA   (GREE/) GREENE J M.
PA   (FERR/) FERRIE A M.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-574454/61.
DR   N-PSDB; AAD44878.
XX
PT   New nucleic acid molecules encoding 28 human secreted proteins, useful
PT   for diagnosing, preventing, treating or ameliorating medical conditions
PT   and as food additives or preservatives  -
XX
PS   Claim 11; Page 186-187; 209pp; English.
XX
CC   AAD44854-AAD44984 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE27097-AAE27137 represent the proteins they encode.
CC   AAE27138-AAE27164 represent human secreted protein fragments. The genes
CC   and their corresponding secreted proteins are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Secreted protein sequences of the invention are useful for the
CC   diagnosis or treatment of disorders such as autoimmune diseases (e.g.
CC   rheumatoid arthritis), hyperproliferative disorders (e.g. neoplasms of
CC   the breast or liver), cerebrovascular disorders (e.g. cerebral ischaemia,
CC   angiogenesis), cardiovascular disorders (e.g. cardiac arrest), nervous
CC   system disorders (e.g. Alzheimer's disease), infections caused by fungi,
CC   bacteria and viruses and ocular disorders (e.g. corneal infection). The
CC   polypeptides can also be used to aid wound healing and epithelial cell
CC   proliferation, to prevent skin aging due to sunburn, to maintain organs
CC   before transplantation, for supporting cell culture of primary tissues,
CC   to regenerate tissues and in chemotaxis. They can also be used as food
CC   additives or preservative to increase or decrease storage capabilities,
CC   fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors
CC   and other nutritional components. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 274;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82
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Qy          61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy         121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy         181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy         241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
               |||||||||||||||||||||||||||||||||||
Db         263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 4
ABR47926
ID ABR47926 standard; Protein; 298 AA.
XX
AC ABR47926;
XX
DT 12-JUN-2003 (first entry)
XX
DE Human secreted protein, SEQ ID 817.
XX
KW Cardiant; antiarrhythmic; antiarteriosclerotic; vasotropic; cytostatic;
KW vulnerary; antiinflammatory; nootropic; neuroprotective;
KW antiparkinsonian; gene therapy; human; cardiovascular disorder.
XX
OS Homo sapiens.
XX
PN WO200295010-A2.
XX
PD 28-NOV-2002.
XX
PF 19-MAR-2002; 2002WO-US09785.
XX
PR 21-MAR-2001; 2001US-277340P.
PR 19-JUL-2001; 2001US-306171P.
PR 13-NOV-2001; 2001US-331287P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-129429/12.
XX
PT Novel human secreted proteins, useful for detecting, preventing,
PT diagnosing, prognosticating, treating and/or ameliorating
PT cardiovascular disorders such as arrhythmia -
XX
PS Claim 13; SEQ ID 817; 1881pp; English.
XX
CC The present invention relates to novel human secreted proteins
CC (ABR47633-ABR48145) and their coding sequences (ACC50344-ACC50856). The
CC proteins and their coding sequences are useful for the preparation of a
CC diagnostic or pharmaceutical composition for diagnosing or treating a
CC cardiovascular disorder (e.g., arrhythmia, tachycardia, cardiac arrest,
CC coronary arteriosclerosis and myocardial ischaemia), neural disorders,
CC immune system disorders, muscular disorders, reproductive disorders,
CC gastrointestinal disorders, pulmonary disorders, renal disorders,
CC proliferative disorders and/or cancerous diseases and conditions, for
CC wound healing and epithelial cell proliferation, to treat inflammation or
CC infection, for treating thrombosis and arteriosclerosis, for treating or
CC preventing neural damage which occurs in neuronal disorders or
CC neurodegenerative conditions such as Alzheimer's disease and Parkinson's
CC disease, to enhance bone and periodontal regeneration and aid in tissue
CC transplants or bone grafts, to prevent skin aging or hair loss, to
CC stimulate growth and differentiation of haematopoietic cells and bone
CC marrow cells when used in combination with other cytokines, to maintain
CC organs before transplantation or for supporting cell culture of primary
CC tissues, to increase or decrease differentiation or proliferation of
CC embryonic stem cells, or to modulate mammalian characteristics or
CC metabolism.
CC Note: The sequence data for this patent was published in electronic
CC format and is available from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 298 AA;

Query Match 99.3%; Score 274; DB 24; Length 298;
Best Local Similarity 100.0%; Pred. No. 1.2e-260;
Matches 276; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy           1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy          61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy         121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy         181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy         241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
               |||||||||||||||||||||||||||||||||||
Db         263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 5
ABU64994
ID ABU64994 standard; Protein; 298 AA.
XX
AC ABU64994;
XX
DT 15-MAY-2003 (first entry)
XX
DE Human secreted protein gene 25, protein.
XX
KW Secreted protein; immunodeficiency; multiple sclerosis;
KW severe combined immunodeficiency; autoimmune disorder; cancer;
KW rheumatoid arthritis; diabetes mellitus; haematopoietic disorder;
KW inflammatory condition; septic shock; inflammatory bowel disease;
KW Crohn's disease; respiratory disorder; asthma; allergy; stroke;
KW gastrointestinal disorder; central nervous system disorder;
KW ischaemic brain injury; neurodegenerative disorder; Parkinson's disease;
KW Alzheimer's disease; cardiovascular disorder; atherosclerosis;
KW blood-related disorder; thrombosis; atherosclerosis; renal disorder;
KW hyperproliferative disorder; acute glomerulonephritis; Addison's disease;
KW endocrine disorder; liver disease; reproductive system disorder;
KW endometriosis; infectious disease; pancreatic disorder; vaccine;
KW wound repair; angiogenesis; lymphatic disorder; hair loss; body weight;
KW body height; hair colour; human.
XX
OS Homo sapiens.
XX
PN US2002172994-A1.
XX
PD 21-NOV-2002.
XX
PF 11-MAY-2001; 2001US-0852797.
XX
PR 14-MAR-1997; 97US-040710P.
PR 14-MAR-1997; 97US-040762P.
PR 30-MAY-1997; 97US-048100P.
PR 30-MAY-1997; 97US-048189P.
PR 30-MAY-1997; 97US-048357P.

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PR   30-MAY-1997;   97US-050934P.
PR   06-JUN-1997;   97US-048970P.
PR   05-SEP-1997;   97US-057765P.
PR   19-DEC-1997;   97US-068368P.
PR   02-FEB-2001; 2001US-265583P.
PR   12-MAR-1998;   98WO-US04858.
PR   11-SEP-1998;   98US-0152060.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
PA   (MOOR/) MOORE P A.
PA   (YOUN/) YOUNG P E.
PA   (GREE/) GREENE J M.
PA   (FERR/) FERRIE A M.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2003-310989/30.
DR   N-PSDB; ABX96990.
XX
PT   New human secreted polypeptides and polynucleotides for diagnosing,
PT   prognosing, preventing and treating immune, hyperproliferative, liver,
PT   kidney, reproductive disorders and for identifying modulators of
PT   therapeutic use -
XX
PS   Claim 11; Page 186; 209pp; English.
XX
CC   The invention relates to an isolated polypeptide comprising an amino acid
CC   sequence at least 95% identical to sequence of 28 human secreted
CC   proteins, their fragment, polypeptide domain, epitope, secreted form,
CC   variant, allelic variant, or species homologue, or the encoded sequence
CC   included in ATCC 97921 and 97922. Also included are the encoding
CC   nucleic acids, recombinant vectors, host cells, antibodies, and genes.
CC   The proteins and nucleic acids are useful for diagnosing, preventing,
CC   treating, prognosing or ameliorating a medical condition e.g.
CC   immunodeficiencies (e.g. X-linked agammaglobulinaemia, B cell
CC   immunodeficiencies, severe combined immunodeficiencies), autoimmune
CC   disorders (e.g. systemic erythematosus, rheumatoid arthritis, multiple
CC   sclerosis, autoimmune thyroiditis, autoimmune haemolytic anaemia,
CC   Goodpasture's syndrome, Grave's disease, diabetes mellitus, dermatitis),
CC   haematopoietic disorders, inflammatory conditions (e.g. septic shock,
CC   sepsis, reperfusion injury, inflammatory bowel disease, Crohn's disease),
CC   respiratory disorders (e.g. asthma and allergy), gastrointestinal
CC   disorders, cancers (e.g. gastric, ovarian, lung, bladder, liver and
CC   breast), central nervous system (CNS) disorders (e.g. ischaemic brain
CC   injury and/or stroke, traumatic brain injury), neurodegenerative
CC   disorders (e.g. Parkinson's disease and Alzheimer's disease, AIDS-related
CC   dementia, and prion disease), cardiovascular disorders (e.g.
CC   atherosclerosis, myocarditis, cardiovascular disease, and cardiopulmonary
CC   bypass complications), inflammation (e.g. hepatitis, gout, trauma,
CC   pancreatitis, sarcoidosis, dermatitis, allogenic transplant rejection),
CC   blood-related disorders (thrombosis, arterial thrombosis),
CC   hyperproliferative disorders, renal disorders (e.g. acute
CC   glomerulonephritis), endocrine disorders (e.g. Addison's disease,
CC   hyperthyroidism, hyperpituitarism), liver diseases and disorders,
CC   reproductive system disorders (e.g. endometriosis), infectious diseases,
CC   and pancreatic disorders. Many other diseases and disorders are listed in
CC   the specification. They also useful as a vaccine adjuvant. Further they
CC   are useful to enhance or inhibit complement mediated cell lysis, for
CC   stimulating wound and tissue repair, angiogenesis, and the repair of
CC   vascular or lymphatic diseases or disorders. They are also useful
CC   to prevent hair loss, to modulate mammalian characteristics such as body
CC   height, weight, hair colour, and to increase or decrease storage
CC   capabilities, fat content, lipid, protein, carbohydrate, vitamins,
CC   minerals, cofactors or other nutritional components. The proteins are
CC   also useful for identifying binding partners. The present sequence
CC   represents a secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match            99.3%;  Score 274;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 6
ABR00172
ID   ABR00172 standard; Protein; 298 AA.
XX
AC   ABR00172;
XX
DT   03-APR-2003  (first entry)
XX
DE   Human gene 162 encoded secreted protein HTEEB42, SEQ ID NO:461.
XX
KW   Human; secreted protein; digestive disorder; gastrointestinal disorder;
KW   mouth; oesophagus; stomach; small intestine; large intestine; liver;
KW   biliary tract; pancreas; cancer; tumour; hyperproliferative disorder;
KW   immune disorder; inflammation; infection; wound healing; drug screening;
KW   chromosome identification; chromosome mapping; cytostatic; gene therapy;
KW   antiinflammatory; immunosuppressive; vulnerary; chromosome 21q21.2.
XX
OS   Homo sapiens.
XX
PN   WO200276488-A1.
XX
PD   03-OCT-2002.
XX
PF   19-MAR-2002; 2002WO-US08276.
XX
PR   21-MAR-2001; 2001US-277340P.
PR   19-JUL-2001; 2001US-306171P.
PR   13-NOV-2001; 2001US-331287P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen CA,  Ruben SM;
XX
DR   WPI; 2003-029900/02.
DR   N-PSDB; ABZ71351.
XX
PT   New human secreted proteins and nucleic acids, useful for detecting,
PT   preventing, diagnosing, prognosticating, treating and/or ameliorating
PT   e.g. gastrointestinal diseases and disorders, or cancers -
XX
PS   Claim 13; Page 1046-1047; 1216pp; English.
```

```
XX
CC   ABZ71190-ABZ71478 represent cDNAs corresponding to 178 human secreted
CC   protein genes, and ABP00011-ABP00299 represent the proteins they encode.
CC   ABZ71479-ABZ71540 represent human secreted protein genomic fragments. The
CC   invention also encompasses antibodies specific for the secreted proteins,
CC   the use of the secreted proteins in drug screening, and recombinant
CC   vectors and host cells comprising a nucleic acid of the invention. The
CC   secreted proteins, nucleic acids encoding them, antibodies or antibody
CC   fragments specific for the secreted proteins, and modulators of protein
CC   activity are useful for diagnosing, treating, ameliorating or preventing
CC   digestive disorders. Such conditions include disorders of the mouth,
CC   oesophagus, stomach, small intestine, large intestine, liver, biliary
CC   tract and pancreas, and include cancers of these organs and tissues. The
CC   secreted proteins and their nucleic acids may also be used in the
CC   treatment of immune disorders, inflammation, infection,
CC   hyperproliferative disorders, and to promote wound healing. Nucleic acids
CC   of the invention may be used for chromosome identification, chromosome
CC   mapping, in gene therapy, for identifying individuals from minute
CC   biological samples, as hybridisation probes, and as molecular weight
CC   markers. The present sequence represents a human secreted protein of the
CC   invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 274;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 7
AAW85457
ID   AAW85457 standard; Protein; 298 AA.
XX
AC   AAW85457;
XX
DT   25-FEB-1999  (first entry)
XX
DE   Secreted protein encoded by clone ct864_4.
XX
KW   Secreted protein; nutritional activity; immune stimulating; vaccine;
KW   suppressing activity; haematopoiesis regulating activity;
KW   tissue growth activity; activin; inhibin activity; chemotactaxis;
KW   chemokinetic activity; haemostasis; thrombolytic activity; receptor;
KW   ligand; anti-inflammatory; cadherin; tumour invasion suppressor;
KW   tumour inhibition; gene therapy.
XX
OS   Homo sapiens.
XX
PN   WO9842739-A2.
XX
PD   01-OCT-1998.
XX
PF   20-MAR-1998;   98WO-US05653.
XX
PR   19-MAR-1998;   98US-0044466.
PR   21-MAR-1997;   97US-0822167.
XX
PA   (GEMY ) GENETICS INST INC.
XX
PI   Agostino MJ,  Jacobs K,  Lavallie ER,  McCoy JM,  Merberg D;
PI   Racie LA,  Spaulding V,  Treacy M;
XX
DR   WPI; 1998-609890/51.
DR   N-PSDB; AAV82780.
XX
PT   New polynucleotides encoding secreted human proteins - derived from
PT   human foetal brain, adult brain, foetal kidney, placenta or adult
PT   pineal gland cDNA libraries.
XX
PS   Claim 17; Page 73-74; 113pp; English.
XX
CC   The present sequence represents a secreted protein. The polynucleotide
CC   and secreted protein are predicted to have biological activities which
CC   would make them suitable for treating, preventing or ameliorating medical
CC   conditions in humans and animals, although no supporting data is given.
CC   Suggested activities include nutritional activity, immune stimulating
CC   (e.g. as vaccines) or suppressing activity, haematopoiesis regulating
CC   activity, tissue growth activity, activin/inhibin activity,
CC   chemotactic/chemokinetic activity, haemostatic and thrombolytic activity,
CC   receptor/ligand activity, anti-inflammatory activity, cadherin/tumour
CC   invasion suppressor activity, and tumour inhibition activity (no data is
CC   given in the specification to support these activities). The
CC   polynucleotide is also stated to be useful for gene therapy.
XX
SQ   Sequence   298 AA;

  Query Match             87.0%;  Score 240;  DB 19;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 3e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 8
AAU00512
ID   AAU00512 standard; Protein; 298 AA.
XX
AC   AAU00512;
XX
DT   09-MAY-2001  (first entry)
XX
DE   Human junctional adhesion protein (JAM2).
XX
KW   Junctional adhesion protein; JAM2; cellular localisation;
KW   cellular expression; immunoprecipitation; stroke; phosphorylation;
KW   glycosylation; paracellular migration; inflammatory disease;
KW   arthritis; asthma; rheumatoid arthritis; inflammatory bowel disease;
KW   Crohn's disease.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
```

```
FT   Peptide          1..20
FT                    /note= "Possible signal peptide #1"
FT   Peptide          1..28
FT                    /note= "Possible signal peptide #2"
FT   Protein          21..298
FT                    /note= "Possible mature JAM2 #1"
FT   Protein          29..298
FT                    /note= "Possible mature JAM2 #2"
FT   Domain           237..254
FT                    /note= "Transmembrane domain"
XX
PN   WO200114404-A1.
XX
PD   01-MAR-2001.
XX
PF   23-AUG-2000; 2000WO-US23158.
XX
PR   24-AUG-1999;   99US-0150459.
XX
PA   (TEXA-) TEXAS BIOTECHNOLOGY CORP.
XX
PI   Cunningham S,  Trindad Arrate Barros M;
XX
DR   WPI; 2001-218425/22.
DR   N-PSDB; AAS00512.
XX
PT   Novel nucleic acids encoding human junctional adhesion protein useful
PT   for producing antibodies that are suitable for therapeutic purposes  -
XX
PS   Claim 4; Page 46-47; 51pp; English.
XX
CC   The sequence represents a human junctional adhesion molecule 2 (JAM2).
CC   The polynucleotide encoding the polypeptide is useful for recombinant
CC   production of JAM-2 protein, which in turn is useful for the production
CC   of antibodies. The antibodies may be used for probing cellular
CC   localisation and/or expression of JAM2 in tissues under normal and
CC   disease states, for immunoprecipitating JAM2 protein from cells and/or
CC   stroke tissues to determine whether it is modified by glycosylation and
CC   phosphorylation, and for determining JAM2 function. The antibodies
CC   inhibit interaction of JAM2 with inflammatory cells or influences their
CC   paracellular migration, and is therefore useful for alleviating
CC   inflammatory diseases such as arthritis, asthma, rheumatoid arthritis,
CC   inflammatory bowel disease and Crohn's disease.
XX
SQ   Sequence   298 AA;

  Query Match             87.0%;  Score 240;  DB 22;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 3e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 9
ABP61801
ID   ABP61801 standard; Protein; 298 AA.
XX
AC   ABP61801;
XX
DT   04-OCT-2002  (first entry)
XX
DE   Human polypeptide SEQ ID NO 155.
XX
KW   Human; cytostatic; antirheumatic; antiarthritic; vulnerary; analgesic;
KW   antiinflammatory; antibacterial; immunosuppressive; antiparkinsonian;
KW   neuroprotective; nootropic; osteopathic; haemostatic; vasotropic;
KW   antiulcer; fungicide; antidiabetic; antiasthmatic; antiallergic;
KW   immunostimulant; antiparasitic; secreted protein; transmembrane protein;
KW   cytokine; cell proliferation; cell differentiation; autoimmune disease;
KW   stem cell; growth factor; nervous system disease; neuropathy;
KW   Alzheimer's disease; Parkinson's disease; Huntington's disease;
KW   osteoporosis; severe combined immunodeficiency; SCID; infection;
KW   multiple sclerosis; rheumatoid arthritis; gene therapy.
XX
OS   Homo sapiens.
XX
PN   US2002065394-A1.
XX
PD   30-MAY-2002.
XX
PF   22-DEC-2000; 2000US-0745763.
XX
PR   18-MAR-1998;   98US-0040963.
XX
PA   (JACO/) JACOBS K.
PA   (MCCO/) MCCOY J M.
PA   (LAVA/) LAVALLIE E R.
PA   (COLL/) COLLINS-RACIE L A.
PA   (EVAN/) EVANS C.
PA   (MERB/) MERBERG D.
PA   (TREA/) TREACY M.
PA   (SPAU/) SPAULDING V.
XX
PI   Jacobs K,  McCoy JM,  LaVallie ER,  Collins-Racie LA,  Evans C;
PI   Merberg D,  Treacy M,  Spaulding V;
XX
DR   WPI; 2002-582343/62.
DR   N-PSDB; ABQ92017.
XX
PT   Novel secreted or transmembrane protein and polynucleotide encoding the
PT   protein, useful for diagnosis and treatment of neurological disorders,
PT   cancer, autoimmune diseases, bone disorders and lung or liver fibrosis
PT   -
XX
PS   Claim 54; Page 116-117; 284pp; English.
XX
CC   The invention relates to human secreted or transmembrane protein (I),
CC   their fragments and is encoded by specific complementary deoxyribonucleic
CC   acid (cDNA) inserts (II), where the protein is substantially free from
CC   other mammalian proteins. (I) are useful for preventing, treating or
CC   ameliorating a medical condition, especially immunological treatment or
CC   prevention of tumours. (I) exhibits activity relating to angiogenesis,
CC   cytokine, cell proliferation, cell differentiation, antiinflammatory,
CC   stem cell growth factor activity and activin or inhibin-related
CC   activities. (I) can be used to manipulate stem cells in culture to give
CC   rise to neuroepithelial cells that can be used to augment or replace
CC   cells damaged by illness, autoimmune disease, accidental damage or
CC   genetic disorders. (I) induces the proliferation of neural cells and
CC   regeneration of nerve and brain tissue and is useful for the treatment of
CC   central and peripheral nervous system diseases and neuropathies, such as
CC   Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC   lateral sclerosis. (I) is involved in chemotactic or chemokinetic
CC   activity, regulation of haematopoiesis and is useful for treating myeloid
CC   or lymphoid cell disorders, platelet disorders such as thrombocytopaenia
CC   and for regeneration of bone, cartilage, tendon, ligament and/or nerve
CC   tissue growth and in tissue repair, healing of burns, incisions, ulcers,
CC   for treating osteoporosis, osteoarthritis, bone degenerative disorders or
CC   periodontal disease. (I) is also useful for gut protection or
CC   regeneration and treatment of lung or liver fibrosis, reperfusion injury
CC   in various tissues, various immune deficiencies and disorders including
CC   severe combined immunodeficiency (SCID), bacterial or fungal infections,
CC   autoimmune disorders e.g. multiple sclerosis, rheumatoid arthritis,
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CC   diabetes mellitus, myasthenia gravis, allergic reactions and conditions,
CC   such as asthma or other respiratory problems. (II) is useful to express
CC   recombinant protein, as markers for tissues in which the corresponding
CC   protein is preferentially expressed and in gene therapy. The present
CC   sequence is that of a polypeptide of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             87.0%;  Score 240;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 3e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 10
AAO16452
ID   AAO16452 standard; protein; 298 AA.
XX
AC   AAO16452;
XX
DT   17-APR-2003  (first entry)
XX
DE   Human junctional adhesion molecule 2 (huJAM2).
XX
KW   Human; gene therapy; extracellular region; junctional adhesion molecules;
KW   huJAM; immune system disorder; immune deficiency; autoimmune disorder;
KW   inflammatory disorder; cancer; wound healing; cardiovascular disease;
KW   full-length membrane-bound huJAM protein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..28
FT                   /label= Signal_peptide
FT   Domain          29..236
FT                   /note= "Extracellular domain; Specifically claimed
FT                   region"
FT   Protein         29..298
FT                   /note= "Mature huJAM2"
XX
PN   WO2003008541-A2.
XX
PD   30-JAN-2003.
XX
PF   05-JUL-2002; 2002WO-US19800.
XX
PR   16-JUL-2001; 2001US-305752P.
PR   05-FEB-2002; 2002US-354345P.
XX
PA   (ELIL ) LILLY & CO ELI.
XX
PI   Heuer JG,  Smith RC,  Su EW;
XX
DR   WPI; 2003-221848/21.
DR   N-PSDB; AAL51599.
XX
PT   New extracellular human junctional adhesion molecule (huJAM)
PT   polypeptide, useful for treating an immune system disorder such as an
PT   immune deficiency or an inflammatory disorder, cancer, wound healing,
PT   or a cardiovascular disease  -
XX
PS   Disclosure; Fig 1; 131pp; English.
XX
CC   The invention comprises the DNA and protein sequences of the
CC   extracellular region of human junctional adhesion molecules (huJAM). The
CC   extracellular huJAM DNA and protein sequences are useful in the treatment
CC   of: immune system disorders (e.g. immune deficiency); autoimmune
CC   disorders; inflammatory disorders; cancer; wound healing; or a
CC   cardiovascular disease. The present amino acid sequence represents the
CC   full-length membrane-bound huJAM2 protein.
XX
SQ   Sequence   298 AA;

  Query Match             87.0%;  Score 240;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 3e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 11
AAY08060
ID   AAY08060 standard; Protein; 312 AA.
XX
AC   AAY08060;
XX
DT   11-SEP-2000  (first entry)
XX
DE   Human PRO245 protein.
XX
KW   Inflammatory cell infiltration; immune response; T cell proliferation;
KW   anti-inflammatory; anti-autoimmune; anti-diabetic; spondyloarthropathy;
KW   T cell-mediated disease; spondyloarthropathy; sclerosis; renal disease;
KW   inflammatory myopathy; hemolytic anemia; thrombocytopenia; thyroiditis;
KW   diabetes mellitus; demyelinating polyneuropathy; Guillain-Barre syndrome;
KW   multiple sclerosis; polyneuropathy; hepatitis; cirrhosis; enteropathy;
KW   sclerosing cholangitis; inflammatory bowel disease; Whipple's disease;
KW   skin disease; dermatitis; psoriasis; asthma; allergic rhinitis; tumor;
KW   food hypersensitivity; urticaria; eosinophilic pneumonia; transplant;
KW   idiopathic pulmonary fibrosis; graft rejection; PRO245; human.
XX
OS   Homo sapiens.
XX
PN   WO9914241-A2.
XX
PD   25-MAR-1999.
XX
PF   17-SEP-1998;   98WO-US19437.
XX
PR   17-SEP-1997;   97US-0059119.
PR   18-SEP-1997;   97US-0059263.
PR   28-OCT-1997;   97US-0063550.
PR   12-NOV-1997;   97US-0065186.
PR   21-NOV-1997;   97US-0066364.
PR   24-NOV-1997;   97US-0066770.
PR   04-JUN-1998;   98US-0088026.
XX
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PA   (GETH ) GENENTECH INC.
XX
PI   Fong S,  Goddard A,  Gurney AL,  Tumas D,  Wood WI;
XX
DR   WPI; 1999-229499/19.
DR   N-PSDB; AAX37664.
XX
PT   Composition containing novel polypeptide PRO245, its agonist or
PT   antagonist -
XX
PS   Example 1; Fig 2; 177pp; English.
XX
CC   This invention describes a novel composition containing (apart from a
CC   carrier or excipient), a novel PRO245 polypeptide (I), its agonist or
CC   antagonist, or their fragments, for modulating: (i) infiltration of
CC   inflammatory cells into tissue; (ii) an immune response; or (iii) T cell
CC   proliferation. The composition increases or decreases any of the effects
CC   (i)-(iii). The products of the invention have anti-inflammatory,
CC   anti-autoimmune and anti-diabetic activity. (I), and its (ant)agonists
CC   and their fragments, are used to treat immune-related diseases,
CC   particularly T cell-mediated diseases. The diseases treated include
CC   systemic lupus erythematosus, rheumatoid arthritis, juvenile chronic
CC   arthritis, spondyloarthropathies, systemic sclerosis (scleroderma),
CC   idiopathic inflammatory myopathies (dermatomyositis, polymyositis),
CC   Sjogren's syndrome, systemic vasculitis, sarcoidosis, autoimmune
CC   hemolytic anemia (immune pancytopenia, paroxysmal nocturnal
CC   hemoglobinuria), autoimmune thrombocytopenia (idiopathic thrombocytopenic
CC   purpura immune-mediated thrombocytopenia), thyroiditis (Grave's disease,
CC   Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC   thyroiditis), diabetes mellitus, immune-mediated renal disease
CC   (glomerulonephritis, tubulointerstitial nephritis), multiple sclerosis,
CC   idiopathic demyelinating polyneuropathy, Guillain-Barre syndrome, chronic
CC   inflammatory demyelinating polyneuropathy, infectious hepatitis
CC   (hepatitis A, B, C, D, E and other non-hepatotropic viruses), autoimmune
CC   chronic active hepatitis, primary biliary cirrhosis, granulomatous
CC   hepatitis, and sclerosing cholangitis, inflammatory bowel disease
CC   (ulcerative colitis: Crohn's disease), gluten-sensitive enteropathy, and
CC   Whipple's disease. Autoimmune or immune-mediated skin diseases including
CC   bullous skin diseases, erythema multiforme,contact dermatitis, psoriasis,
CC   asthma, allergic rhinitis, atopic dermatitis, food hypersensitivity,
CC   urticaria, eosinophilic pneumonia, idiopathic pulmonary fibrosis,
CC   hypersensitivity pneumonitis, and transplantation associated diseases
CC   (graft rejection, and graft-versus-host-disease). (I), its (ant)agonists
CC   or fragment can also be used as an adjuvant in treatment of tumors.
CC   Antibodies against (I) can also be used for diagnosing such diseases.
CC   This sequence represents the human PRO245 protein described in the
CC   invention.
XX
SQ   Sequence   312 AA;

  Query Match             83.3%;  Score 230;  DB 20;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 12
AAY23324
ID   AAY23324 standard; Protein; 312 AA.
XX
AC   AAY23324;
XX
DT   02-SEP-1999  (first entry)
XX
DE   A33 related antigen PRO245.
XX
KW   A33 related antigen; PRO301; PRO362; PRO245; inflammatory disease;
KW   tumour.
XX
OS   Homo sapiens.
XX
PN   WO9927098-A2.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-US24855.
XX
PR   17-SEP-1998;   98WO-US19437.
PR   21-NOV-1997;   97US-0066364.
PR   20-MAR-1998;   98US-0078936.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Ashkenazi A,  Fong S,  Goddard A,  Gurney AL,  Napier MA;
PI   Tumas D,  Wood WI;
XX
DR   WPI; 1999-404743/34.
DR   N-PSDB; AAX81770.
XX
PT   Antigens PRO301, PRO362 and PRO245 related to A33
XX
PS   Example 3; Fig 11; 122pp; English.
XX
CC   The specification describes A33 related antigens PRO301, PRO362 and
CC   PRO245. The methods and compositions of the invention are useful for the
CC   treatment and diagnosis of inflammatory disease and tumours in mammals.
CC   Such inflammatory diseases include of inflammatory bowel disease,
CC   systemic lupus erythematosis, rheumatoid arthritis, juvenile chronic
CC   arthritis, spondyloarthropathies, systemic sclerosis, scleroderma,
CC   idiopathic inflammatory myopathies, dermatomyositis, polymyositis,
CC   Sjogren's syndrome, systemic vaculitis, sarcoidosis, autoimmune hemolytic
CC   anemia, immune pancytopenia, paroxysmal nocturnal hemoglobinuria,
CC   autoimmune thrombocytopenia, idiopathic thrombocytopenic purpura,
CC   immune-mediated thrombocytopenia, thyroiditis, Grave's disease,
CC   Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC   thyroiditis, diabetes mellitus, immune-mediated renal disease,
CC   glomerulonephritis, tubulointerstitial nephritis, demyelinating diseases
CC   of the central and peripheral nervous systems such as multiple sclerosis,
CC   idiopathic polyneuropathy, hepatobiliary diseases, infectious hepatitis
CC   A, B, C, D, E, nonhepatotropic viruses, autoimmune chronic active
CC   hepatitis, primary biliary cirrhosis, granulomatous hepatitis, sclerosing
CC   cholangitis, inflammatory and fibrotic lung diseases, gluten-sensitive
CC   enteropathy, Whipple's disease, autoimmune or immune-mediated skin
CC   diseases allergic diseases of the lung such as eosinophilic pneumonias,
CC   idiopathic pulmonary fibrosis and hypersensitivity pneumonitis
CC   transplantation associated diseases disease. The present sequence
CC   represents PRO245.
XX
SQ   Sequence   312 AA;

  Query Match             83.3%;  Score 230;  DB 20;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
```

RESULT 13
AAY13354
ID AAY13354 standard; Protein; 312 AA.
XX
AC AAY13354;
XX
DT 25-JUN-1999 (first entry)
XX
DE Amino acid sequence of protein PRO245.
XX
KW Secreted protein; transmembrane protein; human; enterocolitis;
KW Zollinger-Ellison syndrome; gastrointestinal ulceration;
KW congenital microvillus atrophy; skin disease; cell growth;
KW abnormal keratinocyte differentiation; psoriasis; epithelial cancer;
KW Parkinson's disease; Alzheimer's disease; ALS; neuropathy;
KW fibromodulin; dermal scarring; Usher Syndrome; Atrophia areata;
KW anti-thrombotic; wound healing; tissue repair.
XX
OS Homo sapiens.
XX
PN WO9914328-A2.
XX
PD 25-MAR-1999.
XX
PF 16-SEP-1998; 98WO-US19330.
XX
PR 25-NOV-1997; 97US-0066840.
PR 17-SEP-1997; 97US-0059113.
PR 17-SEP-1997; 97US-0059115.
PR 17-SEP-1997; 97US-0059117.
PR 17-SEP-1997; 97US-0059119.
PR 17-SEP-1997; 97US-0059121.
PR 17-SEP-1997; 97US-0059122.
PR 17-SEP-1997; 97US-0059184.
PR 18-SEP-1997; 97US-0059263.
PR 18-SEP-1997; 97US-0059266.
PR 15-OCT-1997; 97US-0062125.
PR 17-OCT-1997; 97US-0062285.
PR 17-OCT-1997; 97US-0062287.
PR 21-OCT-1997; 97US-0063486.
PR 24-OCT-1997; 97US-0062814.
PR 24-OCT-1997; 97US-0062816.
PR 24-OCT-1997; 97US-0063045.
PR 24-OCT-1997; 97US-0063120.
PR 24-OCT-1997; 97US-0063121.
PR 24-OCT-1997; 97US-0063127.
PR 24-OCT-1997; 97US-0063128.
PR 27-OCT-1997; 97US-0063329.
PR 27-OCT-1997; 97US-0063327.
PR 28-OCT-1997; 97US-0063541.
PR 28-OCT-1997; 97US-0063542.
PR 28-OCT-1997; 97US-0063544.
PR 28-OCT-1997; 97US-0063549.
PR 28-OCT-1997; 97US-0063550.
PR 28-OCT-1997; 97US-0063564.
PR 29-OCT-1997; 97US-0063435.
PR 29-OCT-1997; 97US-0063704.
PR 29-OCT-1997; 97US-0063732.
PR 29-OCT-1997; 97US-0063738.
PR 29-OCT-1997; 97US-0063734.
PR 29-OCT-1997; 97US-0064215.
PR 29-OCT-1997; 97US-0063735.
PR 31-OCT-1997; 97US-0063870.
PR 31-OCT-1997; 97US-0064103.
PR 03-NOV-1997; 97US-0064248.
PR 07-NOV-1997; 97US-0064809.
PR 12-NOV-1997; 97US-0065186.
PR 17-NOV-1997; 97US-0065846.
PR 18-NOV-1997; 97US-0065693.
PR 21-NOV-1997; 97US-0066120.
PR 21-NOV-1997; 97US-0066364.
PR 24-NOV-1997; 97US-0066772.
PR 24-NOV-1997; 97US-0066466.
PR 24-NOV-1997; 97US-0066770.
PR 24-NOV-1997; 97US-0066511.
PR 24-NOV-1997; 97US-0066453.
XX
PA (GETH) GENENTECH INC.
XX
PI Chen J, Goddard A, Gurney AL, Pennica D, Wood WI, Yuan J;
XX
DR WPI; 1999-229533/19.
DR N-PSDB; AAX52225.
XX
PT New isolated human genes and polypeptides used in, e.g. treatment of
PT gastrointestinal ulceration
XX
PS Claim 12; Fig 24; 320pp; English.
XX
CC AAY13344-403 represent secreted and transmembrane human proteins.
CC The cDNA sequences are obtained from cDNA libraries, prepared from
CC fetal lung, fetal kidney, fetal brain, fetal liver and fetal retina.
CC The encoded polypeptides have specific uses based on their homology to
CC known polypeptides, e.g. PRO211 and PRO217 can be used for disorders
CC associated with the preservation and maintenance of gastrointestinal
CC mucosa and the repair of acute and chronic mucosal lesions
CC (e.g. enterocolitis, Zollinger-Ellison syndrome, gastrointestinal
CC ulceration and congenital microvillus atrophy), skin diseases associated
CC with abnormal keratinocyte differentiation (e.g. psoriasis, epithelial
CC cancers such as lung squamous cell carcinoma of the vulva and gliomas),
CC potent effects on cell growth and development, diseases related to
CC growth or survival of nerve cells including Parkinson's disease,
CC Alzheimer's disease, ALS, neuropathies or cancer. PRO265 can be used as
CC for fibromodulin, e.g. for reducing dermal scarring. PRO264 can be used
CC as a target for anti-tumor drugs. PRO533 may be used in the treatment
CC of Usher Syndrome or Atrophia areata; PRO269 can be used as an
CC anti-thrombotic agent; PRO287 polypeptides and portions may have
CC therapeutic applications in wound healing and tissue repair; PRO317 can
CC be used for treating problems of the kidney, uterus, endometrium, blood
CC vessels, or related tissue, e.g. in the heart of genital tract.
XX
SQ Sequence 312 AA;

```
  Query Match             83.3%;  Score 230;  DB 20;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
```

RESULT 14
AAB33421

ID AAB33421 standard; Protein; 312 AA.
XX
AC AAB33421;
XX
DT 29-JAN-2001 (first entry)
XX
DE Human PRO245 protein UNQ219 SEQ ID NO:36.
XX
KW Human; immune related disease; diagnosis; antiinflammatory; cardiant;
KW dermatological; antiarthritic; antirheumatic; immunosuppressive;
KW haemostatic; antithyroid; antidiabetic; nootropic; neuroprotective;
KW antianaemic; hepatotropic; virucide; antipsoriatic; antiallergic;
KW antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis;
KW osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis;
KW idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis;
KW systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus;
KW autoimmune thrombocytopaenia; immune-mediated renal disease;
KW demyelinating disease; hepatobiliary disease; Whipple's disease;
KW inflammatory bowel disease; gluten-sensitive enteropathy;
KW autoimmune disease; immune-mediated skin disease; allergic disease;
KW immunological disease; transplantation associated disease;
KW graft rejection; graft-versus-host-disease.
XX
OS Homo sapiens.
XX
PN WO200053758-A2.
XX
PD 14-SEP-2000.
XX
PF 02-MAR-2000; 2000WO-US05841.
XX
PR 08-MAR-1999; 99WO-US05028.
PR 10-MAR-1999; 99US-0123618.
PR 12-MAR-1999; 99US-0123957.
PR 23-MAR-1999; 99US-0125775.
PR 12-APR-1999; 99US-0128849.
PR 20-APR-1999; 99WO-US08615.
PR 28-APR-1999; 99US-0131445.
PR 04-MAY-1999; 99US-0132371.
PR 14-MAY-1999; 99US-0134287.
PR 02-JUN-1999; 99WO-US12252.
PR 23-JUN-1999; 99US-0141037.
PR 20-JUL-1999; 99US-0144758.
PR 26-JUL-1999; 99US-0145698.
PR 28-JUL-1999; 99US-0146222.
PR 01-SEP-1999; 99WO-US20111.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 29-OCT-1999; 99US-0162506.
PR 29-NOV-1999; 99WO-US28214.
PR 30-NOV-1999; 99WO-US28313.
PR 30-NOV-1999; 99WO-US28409.
PR 01-DEC-1999; 99WO-US28301.
PR 01-DEC-1999; 99WO-US28634.
PR 02-DEC-1999; 99WO-US28551.
PR 02-DEC-1999; 99WO-US28564.
PR 02-DEC-1999; 99WO-US28565.
PR 16-DEC-1999; 99WO-US30095.
PR 20-DEC-1999; 99WO-US30999.
PR 30-DEC-1999; 99WO-US31274.
PR 05-JAN-2000; 2000WO-US00219.
PR 06-JAN-2000; 2000WO-US00277.
PR 06-JAN-2000; 2000WO-US00376.
PR 11-FEB-2000; 2000WO-US03565.
PR 18-FEB-2000; 2000WO-US04341.
PR 18-FEB-2000; 2000WO-US04342.
PR 22-FEB-2000; 2000WO-US04414.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Goddard A, Gurney AL, Hebert C, Henzel W;
PI Kabakoff RC, Lu Y, Pan J, Pennica D, Shelton DL, Smith V;
PI Stewart TA, Tumas D, Watanabe CK, Wood WI, Yan M;
XX
DR WPI; 2000-572271/53.
DR N-PSDB; AAC58586.
XX
PT Sixty four PRO polypeptides, useful in the diagnosis and treatment of
PT immune related disorders, e.g. systemic lupus erythematosis, rheumatoid
PT arthritis, osteoarthritis, thyroiditis and diabetes mellitus -
XX
PS Claim 33; Fig 16; 309pp; English.
XX
CC The present invention describes sixty four human PRO proteins which can
CC be used in the treatment of immune related diseases. The human PRO
CC proteins, anti-PRO antibodies, agonists and antagonists are useful for
CC treating and diagnosing immune related disorders. The disorders are
CC selected from systemic lupus erythematosus, rheumatoid arthritis,
CC osteoarthritis, juvenile chronic arthritis, spondyloarthropathies,
CC systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's
CC syndrome, systemic vasculitis, sarcoidosis, autoimmune haemolytic
CC anaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus,
CC immune-mediated renal disease, demyelinating diseases of the central
CC and peripheral nervous systems, hepatobiliary diseases, inflammatory
CC bowel disease, gluten-sensitive enteropathy and Whipple's disease,
CC autoimmune or immune-mediated skin diseases, allergic diseases,
CC immunological diseases of the lung, and transplantation associated
CC diseases including graft rejection and graft-versus-host-disease.
CC AAC58397 to AAC58578 represent PCR primers and hybridisation probes used
CC in the isolation of human PRO sequences. AAC58579 to AAC58642 and
CC AAB33414 to AAB33477 represent human PRO polynucleotide and protein
CC sequences given in the exemplification of the present invention.
XX
SQ Sequence 312 AA;

Query Match 83.3%; Score 230; DB 21; Length 312;
Best Local Similarity 100.0%; Pred. No. 2.1e-217;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
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Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
```

RESULT 15
AAB24401
ID AAB24401 standard; Protein; 312 AA.
XX
AC AAB24401;
XX
DT 07-NOV-2000 (first entry)
XX
DE Human PRO245 protein sequence SEQ ID NO:67.
XX
KW Human; PRO; promotion; inhibition; angiogenesis; cardiovascularisation;
KW diagnosis; trauma; wound; cancer; atherosclerosis; cardiac hypertrophy;
KW angiogenic; proliferative; cardiant; cardiovascular; antiatherosclerotic;
KW cytostatic; gene therapy; vaccine.
XX
OS Homo sapiens.
XX

PN WO200032221-A2.
XX
PD 08-JUN-2000.
XX
PF 30-NOV-1999; 99WO-US28313.
XX
PR 01-DEC-1998; 98WO-US25108.
PR 16-DEC-1998; 98US-0112850.
PR 12-JAN-1999; 99US-0115554.
PR 08-MAR-1999; 99WO-US05028.
PR 12-MAR-1999; 99US-0123957.
PR 28-APR-1999; 99US-0131445.
PR 14-MAY-1999; 99US-0134287.
PR 02-JUN-1999; 99WO-US12252.
PR 23-JUN-1999; 99US-0141037.
PR 20-JUL-1999; 99US-0144758.
PR 26-JUL-1999; 99US-0145698.
PR 01-SEP-1999; 99WO-US20111.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 29-OCT-1999; 99US-0162506.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Ferrara N, Gerber H, Hillan KJ, Goddard A;
PI Godowski PJ, Gurney AL, Klein RD, Kuo SS, Paoni NF, Smith V;
PI Watanabe CK, Williams PM, Wood WI;
XX
DR WPI; 2000-412154/35.
DR N-PSDB; AAA77562.
XX
PT Nucleic acids encoding PRO polypeptides useful for preventing,
PT diagnosing and treating diagnosing a cardiovascular, endothelial or
PT angiogenic disorders in mammals -
XX
PS Claim 72; Fig 28; 315pp; English.
XX
CC The present invention describes nucleic acids encoding PRO polypeptides
CC useful for preventing, diagnosing and treating diagnosing a
CC cardiovascular, endothelial or angiogenic disorder in mammals by
CC modulating cell proliferation, angiogenesis and cardiovascularisation,
CC and for identifying agonists and antagonists of these processes. The
CC nucleic acids and the proteins they encode may be used in the
CC prevention, treatment and diagnosis of diseases associated with
CC inappropriate PRO expression such as cardiovascular, endothelial or
CC angiogenic disorders in mammals (e.g. atherosclerosis, cancers and
CC cardiac hypertrophy). For example, the nucleic acids (NCs) and vectors
CC containing them and the PRO polypeptide may be used to treat disorders
CC associated with decreased PRO expression. AAA77510 to AAA77721 and
CC AAB24388 to AAB24435 represent nucleotide and protein sequences used in
CC the exemplification of the present invention.
XX
SQ Sequence 312 AA;

Query Match 83.3%; Score 230; DB 21; Length 312;
Best Local Similarity 100.0%; Pred. No. 2.1e-217;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:34:36 ; Search time 14.4251 Seconds
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809.548 Million cell updates/sec

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Perfect score: 276
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Word size : 30

Total number of hits satisfying chosen parameters: 2

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Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	274	99.3	298	4	US-09-152-060-76	Sequence 76, Appl
2	230	83.3	312	4	US-09-254-465A-9	Sequence 9, Appli

ALIGNMENTS

RESULT 1
US-09-152-060-76
; Sequence 76, Application US/09152060
; Patent No. 6448230
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 28 Human Secreted Proteins
; FILE REFERENCE: PZ003P1.US
; CURRENT APPLICATION NUMBER: US/09/152,060
; CURRENT FILING DATE: 1998-09-11
; EARLIER APPLICATION NUMBER: PCT/US98/04858
; EARLIER FILING DATE: 1998-03-12
; EARLIER APPLICATION NUMBER: 60/040,762
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/040,710
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/050,934
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,100
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,357
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,189
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/057,765
; EARLIER FILING DATE: 1997-09-05
; EARLIER APPLICATION NUMBER: 60/048,970
; EARLIER FILING DATE: 1997-06-06
; EARLIER APPLICATION NUMBER: 60/068,368
; EARLIER FILING DATE: 1997-12-19
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
; LENGTH: 298
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (42)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (58)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-152-060-76

Query Match 99.3%; Score 274; DB 4; Length 298;
Best Local Similarity 100.0%; Pred. No. 2.5e-261;
Matches 276; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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RESULT 2
US-09-254-465A-9
; Sequence 9, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Fong, Sherman
; APPLICANT: Goddard, Audrey
; APPLICANT: Gurney, Austin L.
; APPLICANT: Napier, Mary A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Wood, William I.
; TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
; TITLE OF INVENTION: OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
; FILE REFERENCE: P1216R1(US)
; CURRENT APPLICATION NUMBER: US/09/254,465A
; CURRENT FILING DATE: 1999-03-05
; PRIOR APPLICATION NUMBER: PCT/US98/24855
; PRIOR FILING DATE: 1998-11-20
; PRIOR APPLICATION NUMBER: US 60/066,364
; PRIOR FILING DATE: 1997-11-21

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;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 9
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-9

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  Best Local Similarity   100.0%;  Pred. No. 4.5e-218;
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GenCore version 5.1.6

OM protein - protein search, using sw model

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Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 684280 seqs, 185983659 residues

Word size : 30

Total number of hits satisfying chosen parameters: 489

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Published_Applications_AA:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
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2	274	99.3	298	9	US-09-852-659A-76	Sequence 76, Appl
3	274	99.3	298	10	US-09-852-797-76	Sequence 76, Appl
4	240	87.0	298	9	US-09-745-763-38	Sequence 38, Appl
5	240	87.0	298	9	US-09-799-777-30	Sequence 30, Appl
6	240	87.0	298	15	US-10-139-849-2	Sequence 2, Appli
7	240	87.0	298	16	US-10-192-791-2	Sequence 2, Appli
8	230	83.3	312	10	US-09-909-320-64	Sequence 64, Appl
9	230	83.3	312	10	US-09-909-088B-64	Sequence 64, Appl
10	230	83.3	312	10	US-09-905-291A-64	Sequence 64, Appl
11	230	83.3	312	10	US-09-953-499-9	Sequence 9, Appli
12	230	83.3	312	10	US-09-902-853-64	Sequence 64, Appl
13	230	83.3	312	10	US-09-907-824-64	Sequence 64, Appl
14	230	83.3	312	10	US-09-907-841-64	Sequence 64, Appl
15	230	83.3	312	11	US-09-904-011-64	Sequence 64, Appl
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17	230	83.3	312	11	US-09-906-838-64	Sequence 64, Appl
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ALIGNMENTS

RESULT 1
US-09-853-161-76
; Sequence 76, Application US/09853161
; Patent No. US20020076756A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 28 Human Secreted Proteins
; FILE REFERENCE: PZ003P3
; CURRENT APPLICATION NUMBER: US/09/853,161
; CURRENT FILING DATE: 2001-05-11
; PRIOR APPLICATION NUMBER: 60/265,583
; PRIOR FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: 09/152,060
; PRIOR FILING DATE: 1998-09-11
; PRIOR APPLICATION NUMBER: PCT/US98/04858
; PRIOR FILING DATE: 1998-03-12
; PRIOR APPLICATION NUMBER: 60/040,762
; PRIOR FILING DATE: 1997-03-14
; PRIOR APPLICATION NUMBER: 60/040,710
; PRIOR FILING DATE: 1997-03-14
; PRIOR APPLICATION NUMBER: 60/050,934
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,100
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,357
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,189
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/057,765
; PRIOR FILING DATE: 1997-09-05
; PRIOR APPLICATION NUMBER: 60/048,970
; PRIOR FILING DATE: 1997-06-06
; PRIOR APPLICATION NUMBER: 60/068,368
; PRIOR FILING DATE: 1997-12-19
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
; LENGTH: 298

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;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-853-161-76

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  Best Local Similarity   100.0%;  Pred. No. 4.5e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 2
US-09-852-659A-76
; Sequence 76, Application US/09852659A
; Patent No. US20020077287A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P4
;  CURRENT APPLICATION NUMBER: US/09/852,659A
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 121
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-659A-76

  Query Match             99.3%;  Score 274;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 4.5e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
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Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
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RESULT 3
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; Sequence 76, Application US/09852797
; Patent No. US20020172994A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P2
;  CURRENT APPLICATION NUMBER: US/09/852,797
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
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;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 118
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;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-797-76

  Query Match             99.3%;  Score 274;  DB 10;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 4.5e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
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Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 4
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; Sequence 38, Application US/09745763
; Patent No. US20020065394A1
;   GENERAL INFORMATION:
;        APPLICANT: Jacobs, Kenneth
;                   McCoy, John M.
;                   LaVallie, Edward R.
;                   Collins-Racie, Lisa A.
;                   Evans, Cheryl
;                   Merberg, David
;                   Treacy, Maurice
;                   Spaulding, Vikki
;        TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES
;                            ENCODING THEM
;        NUMBER OF SEQUENCES: 219
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Genetics Institute, Inc.
;             STREET: 87 CambridgePark Drive
;             CITY: Cambridge
;             STATE: MA
;             COUNTRY: U.S.A.
;             ZIP: 02140
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/745,763
;             FILING DATE: 18-Jun-2000
;             CLASSIFICATION: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Sprunger, Suzanne A.
;             REGISTRATION NUMBER: 41,323
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (617) 498-8284
;             TELEFAX: (617) 876-5851
;   INFORMATION FOR SEQ ID NO: 38:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: <Unknown>
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 38:
US-09-745-763-38

  Query Match             87.0%;  Score 240;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 5
US-09-799-777-30
; Sequence 30, Application US/09799777
; Patent No. US20020091244A1
;   GENERAL INFORMATION:
;        APPLICANT: Lal, Preeti
;                   Hillman, Jennifer L.
;                   Corley, Neil C.
;                   Guegler, Karl J.
;                   Baugh, Mariah
;                   Sather, Susan
;                   Shah, Purvi
;        TITLE OF INVENTION: HUMAN SIGNAL PEPTIDE-CONTAINING PROTEINS
;        NUMBER OF SEQUENCES: 154
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
;             STREET: 3174 PORTER DRIVE
;             CITY: PALO ALTO
;             STATE: CALIFORNIA
;             COUNTRY: USA
;             ZIP: 94304
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/799,777
;             FILING DATE: 06-Mar-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/002,485
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: BILLINGS, LUCY J.
;             REGISTRATION NUMBER: 36,749
;             REFERENCE/DOCKET NUMBER: PF-0459 US
;        TELECOMMUNICATION INFORMATION:
```

```
;             TELEPHONE: (650) 855-0555
;             TELEFAX: (650) 845-4166
;   INFORMATION FOR SEQ ID NO: 30:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        IMMEDIATE SOURCE:
;             LIBRARY: DUODNOT02
;             CLONE: 1704050
;        SEQUENCE DESCRIPTION: SEQ ID NO: 30 :
US-09-799-777-30

  Query Match             87.0%;  Score 240;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

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Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 6
US-10-139-849-2
; Sequence 2, Application US/10139849
; Publication No. US20030079238A1
;   GENERAL INFORMATION:
;        APPLICANT: Cunningham, Sonia
;                   Barros, Maria Pia
;        TITLE OF INVENTION: A POLYNUCLEOTIDE ENCODING A HUMAN
;                            JUNCTIONAL ADHESION PROTEIN (JAM 2)
;        NUMBER OF SEQUENCES: 10
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Rockey, Milnamow & Katz, Ltd.
;             STREET: 180 N. Stetson Avenue, 2 Prudential Plaza,
;                     Suite 4700
;             CITY: Chicago
;             STATE: IL
;             COUNTRY: U.S.A.
;             ZIP: 60601
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/139,849
;             FILING DATE: 07-May-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/643,929
;             FILING DATE: 23-Aug-2000
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Katz, Martin L.
;             REGISTRATION NUMBER: 25,011
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 312-616-5400
;             TELEFAX: 312-616-5460
;   INFORMATION FOR SEQ ID NO: 2:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-10-139-849-2

  Query Match             87.0%;  Score 240;  DB 15;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 7
US-10-192-791-2
; Sequence 2, Application US/10192791
; Publication No. US20030130166A1
; GENERAL INFORMATION:
;  APPLICANT: Texas Biotechnology Corporation
;  TITLE OF INVENTION: A Polynucleotide Encoding a Human Junctional Adhesion Protein (J
;  FILE REFERENCE: TEX4542P0430
;  CURRENT APPLICATION NUMBER: US/10/192,791
;  CURRENT FILING DATE:  2003-12-10
;  NUMBER OF SEQ ID NOS: 10
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-192-791-2

  Query Match             87.0%;  Score 240;  DB 16;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 8
US-09-909-320-64
; Sequence 64, Application US/09909320
; Patent No. US20020132240A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
```

```
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/909,320
;  CURRENT FILING DATE:  2002-01-04
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-909-320-64

  Query Match           83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity  100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSPVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Db         59 SRLEWKKLGRSVSPVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 9
US-09-909-088B-64
; Sequence 64, Application US/09909088B
; Patent No. US20020146709A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/909,088B
;  CURRENT FILING DATE:  2001-07-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
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;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-909-088B-64

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 10
US-09-905-291A-64
; Sequence 64, Application US/09905291A
; Patent No. US20020160374A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/905,291A
;  CURRENT FILING DATE:  2001-07-12
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-291A-64

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 11
US-09-953-499-9
; Sequence 9, Application US/09953499
; Publication No. US20020182206A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
```

```
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE: P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/953,499
;  CURRENT FILING DATE:  2001-09-14
;  PRIOR APPLICATION NUMBER: US/09/254,465
;  PRIOR FILING DATE: 1999-03-05
;  PRIOR APPLICATION NUMBER: PCT/US98/24855
;  PRIOR FILING DATE: 1998-11-20
;  PRIOR APPLICATION NUMBER: US 60/066,364
;  PRIOR FILING DATE: 1997-11-21
;  PRIOR APPLICATION NUMBER: US 60/078,936
;  PRIOR FILING DATE: 1998-03-20
;  PRIOR APPLICATION NUMBER: PCT/US98/19437
;  PRIOR FILING DATE: 1998-09-17
;  NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 9
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-953-499-9

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 12
US-09-902-853-64
; Sequence 64, Application US/09902853
; Publication No. US20020192659A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/902,853
;  CURRENT FILING DATE:  2001-07-10
;  PRIOR APPLICATION NUMBER: US/09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-902-853-64

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 13
US-09-907-824-64
; Sequence 64, Application US/09907824
; Publication No. US20020197671A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,824
;  CURRENT FILING DATE:  2001-07-17
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-907-824-64

  Query Match            83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity  100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 14
US-09-907-841-64
; Sequence 64, Application US/09907841
; Publication No. US20020198366A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,841
;  CURRENT FILING DATE:  2001-11-20
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
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;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-907-841-64

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 15
US-09-904-011-64
; Sequence 64, Application US/09904011
; Publication No. US20030003530A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/904,011
;  CURRENT FILING DATE:  2001-07-11
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-904-011-64

  Query Match             83.3%;  Score 230;  DB 11;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


Search completed: December  9, 2003, 17:47:10
Job time : 34.1777 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:33:14 ; Search time 13.4634 Seconds
(without alignments)
1971.458 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 276
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 283308 seqs, 96168682 residues

Word size : 30

Total number of hits satisfying chosen parameters: 0

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description

No matches found

Search completed: December 9, 2003, 17:38:32
Job time : 14.4634 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:26:43 ; Search time 9.61672 Seconds
(without alignments)
1349.666 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 276
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 127863 seqs, 47026705 residues

Word size : 30

Total number of hits satisfying chosen parameters: 1

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	240	87.0	298	1	JAM2_HUMAN	P57087 homo sapien

ALIGNMENTS

RESULT 1
JAM2_HUMAN
ID JAM2_HUMAN STANDARD; PRT; 298 AA.
AC P57087;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 15-SEP-2003 (Rel. 42, Last annotation update)
DE Junctional adhesion molecule 2 precursor (Vascular endothelial
DE junction-associated molecule) (VE-JAM).
GN JAM2 OR VEJAM OR C21ORF43.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Vascular endothelial cells;
RX MEDLINE=20317114; PubMed=10779521;
RA Palmeri D., van Zante A., Huang C.C., Hemmerich S., Rosen S.D.;
RT "Vascular endothelial junction-associated molecule, a novel member of
RT the immunoglobulin superfamily, is localized to intercellular
RT boundaries of endothelial cells.";
RL J. Biol. Chem. 275:19139-19145(2000).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Placenta;
RX MEDLINE=20507930; PubMed=10945976;
RA Cunningham S.A., Arrate M.P., Rodriguez J.M., Bjercke R.J.,
RA Vanderslice P., Morris A.P., Brock T.A.;
RT "A novel protein with homology to the junctional adhesion molecule:
RT Characterization of leukocyte interactions.";
RL J. Biol. Chem. 275:34750-34756(2000).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=Lung;
RX MEDLINE=22388257; PubMed=12477932;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length
RT human and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC -!- FUNCTION: MAY PLAY A ROLE IN THE PROCESSES OF LYMPHOCYTE HOMING TO
CC SECONDARY LYMPHOID ORGANS.
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC -!- TISSUE SPECIFICITY: PROMINENTLY EXPRESSED ON HIGH ENDOTHELIAL
CC VENULES BUT IS ALSO PRESENT ON THE ENDOTHELIA OF OTHER VESSELS.
CC LOCALIZED TO THE INTERCELLULAR BOUNDARIES OF HIGH ENDOTHELIAL
CC CELLS.
CC -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC -!- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
CC -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC -!- DATABASE: NAME=PROW; NOTE=PROW 2:1-3(2001);
CC WWW="http://www.ncbi.nlm.nih.gov/prow/guide/1652492186_g.htm".
CC ---

CC ---
DR EMBL; AF255910; AAF81223.1; -.
DR EMBL; AY016009; AAG49022.1; -.
DR EMBL; BC017779; AAH17779.1; -.
DR Genew; HGNC:14686; JAM2.
DR MIM; 606870; -.
DR GO; GO:0005887; C:integral to plasma membrane; NAS.
DR GO; GO:0016337; P:cell-cell adhesion; NAS.
DR InterPro; IPR007110; Ig-like.
DR InterPro; IPR003598; Ig_c2.
DR InterPro; IPR003006; Ig_MHC.
DR Pfam; PF00047; ig; 2.
DR SMART; SM00408; IGc2; 1.
DR PROSITE; PS50835; IG_LIKE; 2.
KW Immunoglobulin domain; Glycoprotein; Transmembrane; Signal.

FT	SIGNAL	1	20 POTENTIAL.
FT	CHAIN	21	298 JUNCTIONAL ADHESION MOLECULE 2.
FT	DOMAIN	21	238 EXTRACELLULAR (POTENTIAL).
FT	TRANSMEM	239	259 POTENTIAL.
FT	DOMAIN	260	298 CYTOPLASMIC (POTENTIAL).
FT	DOMAIN	32	127 IG-LIKE V-TYPE.
FT	DOMAIN	134	238 IG-LIKE C2-TYPE.
FT	DISULFID	50	109 POTENTIAL.
FT	DISULFID	155	214 POTENTIAL.

```
FT   CARBOHYD     98     98       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    187    187       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    236    236       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   298 AA;  33207 MW;  CA78E518E22DCAEE CRC64;

  Query Match             87.0%;  Score 240;  DB 1;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-232;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy          97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


Search completed: December  9, 2003, 17:36:26
Job time : 9.61672 secs
```

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:32:33 ; Search time 35.101 Seconds
(without alignments)
2029.071 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 276
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 830525 seqs, 258052604 residues

Word size : 30

Total number of hits satisfying chosen parameters: 0

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description

No matches found

Search completed: December 9, 2003, 17:38:06
Job time : 35.101 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:13:47 ; Search time 36.5436 Seconds
(without alignments)
1198.803 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 276
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 1107863 seqs, 158726573 residues

Word size: 50

Total number of hits satisfying chosen parameters: 40

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : A_Geneseq_19Jun03:*
1: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
3: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:*
4: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
5: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1984.DAT:*
6: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1985.DAT:*
7: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1986.DAT:*
8: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1987.DAT:*
9: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1988.DAT:*
10: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
11: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1990.DAT:*
12: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*
13: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1992.DAT:*
14: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1993.DAT:*
15: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1994.DAT:*
16: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1995.DAT:*
17: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1996.DAT:*
18: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1997.DAT:*
19: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1998.DAT:*
20: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
21: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2000.DAT:*
22: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2001.DAT:*
23: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*
24: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2003.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	274	99.3	298	19	AAW75220	Human secreted pro
2	274	99.3	298	23	AAE26983	Human gene 25 enco
3	274	99.3	298	23	AAE27121	Human gene 25 enco
4	274	99.3	298	24	ABR47926	Human secreted pro
5	274	99.3	298	24	ABU64994	Human secreted pro
6	274	99.3	298	24	ABR00172	Human gene 162 enc
7	240	87.0	298	19	AAW85457	Secreted protein e
8	240	87.0	298	22	AAU00512	Human junctional a
9	240	87.0	298	23	ABP61801	Human polypeptide
10	240	87.0	298	24	AAO16452	Human junctional a
11	230	83.3	312	20	AAY08060	Human PRO245 prote
12	230	83.3	312	20	AAY23324	A33 related antige
13	230	83.3	312	20	AAY13354	Amino acid sequenc
14	230	83.3	312	21	AAB33421	Human PRO245 prote
15	230	83.3	312	21	AAB24401	Human PRO245 prote
16	230	83.3	312	21	AAY70668	Human PRO245 prote
17	230	83.3	312	22	AAU12339	Human PRO245 polyp
18	230	83.3	312	22	AAU00821	Human immune respo
19	230	83.3	312	22	AAB80222	Human PRO245 prote
20	230	83.3	312	22	AAB50904	Human PRO245 prote
21	230	83.3	312	22	AAB53081	Human angiogenesis
22	230	83.3	312	24	ABU69632	Novel human secret
23	230	83.3	312	24	ABU71455	Human PRO polypept
24	230	83.3	312	24	ABU71901	Human secreted/tra
25	230	83.3	312	24	ABU07738	Human A-33 related
26	230	83.3	312	24	ABU66737	Human PRO polypept
27	230	83.3	312	24	ABU67013	Human secreted/tra
28	230	83.3	312	24	ABU67355	Human secreted pro
29	230	83.3	312	24	ABU59818	Novel secreted and
30	230	83.3	312	24	ABU64509	Human secreted/tra
31	230	83.3	312	24	ABU54357	Human secreted/tra
32	222	80.4	222	22	AAM41947	Human polypeptide
33	215	77.9	215	22	AAB70500	Angiogenesis prote
34	183	66.3	213	21	AAB27277	Human confluency r
35	166	60.1	303	22	AAM23693	Human EST encoded
36	107	38.8	107	22	AAM40161	Human polypeptide
37	89	32.2	388	22	ABG22341	Novel human diagno
38	73	26.4	140	22	ABG22338	Novel human diagno
39	69	25.0	69	22	ABG22339	Novel human diagno
40	51	18.5	66	22	ABG22340	Novel human diagno

ALIGNMENTS

RESULT 1
AAW75220
ID AAW75220 standard; Protein; 298 AA.
XX
AC AAW75220;
XX
DT 29-JAN-1999 (first entry)
XX
DE Human secreted protein encoded by gene 25 clone HTEEB42.
XX
KW Human; secreted protein; fusion protein; gene therapy; protein therapy;
KW diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia;
KW developmental abnormality; foetal deficiency; blood; allergy; renal;
KW immune system; asthma; lymphocytic disease; brain; hepatic; lymphoma;
KW inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS;
KW cognitive disorder; schizophrenia; prostate; obesity; osteoclast; thymus;
KW osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion;
KW endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 42
FT /label= unknown
FT Misc-difference 58
FT /label= unknown
XX
PN WO9840483-A2.
XX
PD 17-SEP-1998.
XX
PF 12-MAR-1998; 98WO-US04858.
XX
PR 19-DEC-1997; 97US-0068368.
PR 14-MAR-1997; 97US-0040710.
PR 14-MAR-1997; 97US-0040762.
PR 30-MAY-1997; 97US-0048100.

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PR   30-MAY-1997;   97US-0048189.
PR   30-MAY-1997;   97US-0048357.
PR   30-MAY-1997;   97US-0050934.
PR   06-JUN-1997;   97US-0048970.
PR   05-SEP-1997;   97US-0057765.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Ferrie AM,  Fischer CL,  Gentz RL,  Greene JM,  Kyaw H;
PI   Li H,  Li Y,  Moore PA, Rosen CA,  Ruben SM,  Soppet DR;
PI   Wei YF,  Young PE,  Zeng Z;
XX
DR   WPI; 1998-520811/44.
DR   N-PSDB; AAV34310.
XX
PT   Isolated human poly:nucleotide(s) encoding secretory peptide(s) -
PT   used to develop products for the diagnosis and treatment of e.g.
PT   inflammation, cancers, CNS disorders or immune system disorders
XX
PS   Claim 1; Page 168-169; 201pp; English.
XX
CC   This sequence represents a secreted human protein encoded by the gene
CC   clone detailed in the descriptor line.  The gene can be used to generate
CC   fusion proteins by linking to the gene to a human immunoglobulin Fc
CC   portion (e.g. AAV34277) for increasing the stability of the fused
CC   protein as compared to the human protein only.
CC   The invention relates to 28 novel genes and their fragments (nucleic
CC   acid sequences: AAV34286-V34325; amino acid sequences AAW75196-W75235)
CC   which are useful for preventing, treating or ameliorating  medical
CC   conditions e.g. by protein or gene therapy.  Also, pathological
CC   conditions can be diagnosed by determining the amount of the new
CC   polypeptides in a sample or by determining the presence of mutations in
CC   the new polynucleotides. Specific uses are described for each of the 28
CC   polynucleotides, based on which tissues they are most highly expressed in
CC   (see AAV34286 for described uses).
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 274;  DB 19;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 2
AAE26983
ID   AAE26983 standard; Protein; 298 AA.
XX
AC   AAE26983;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; immunodeficiency; X-linked agammaglobulinaemia; septic shock;
KW   autoimmune disorder; rheumatoid arthritis; multiple sclerosis; cancer;
KW   Grave's disease; diabetes mellitus; haematopoietic disorder; stroke;
KW   respiratory disorder; asthma; allergy; gastrointestinal disorder;
KW   inflammatory bowel disease; neurodegenerative disorder; hepatitis;
KW   Parkinson's disease; Alzheimer's disease; cardiovascular disorder;
KW   atherosclerosis; myocarditis; renal disorder; fungicide; virucide;
KW   hyperproliferative disorder; acute glomerulonephritis; tonsilitis;
KW   respiratory disorder; rhinitis; sinusitis; neurological disease;
KW   endocrine disorder; Addison's disease; reproductive system disorder;
KW   endometriosis; vasotropic; vulnerary; cytostatic; nootropic; cardiant;
KW   anti-HIV; tranquilliser; gout; antiparasitic.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Human mature secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002077287-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0852659.
XX
PR   11-SEP-1998;   98US-0152060.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-598780/64.
DR   N-PSDB; AAD44660.
XX
PT   Novel human secreted polypeptides and polynucleotides for diagnosing,
PT   preventing, treating immune, hyperproliferative, cardiovascular,
PT   neurological, reproductive disorders and identifying modulators of
PT   therapeutic use  -
XX
PS   Claim 11; Page 186; 209pp; English.
XX
CC   AAD44636-AAD44676 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE26959-AAE26999 represent the proteins they encode.
CC   AAE27000-AAE27025 represent human secreted protein fragments or their
CC   variants. The secreted proteins and genes are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Specific uses are described for each of the 28 genes, based
CC   on the tissues in which they are most highly expressed and include
CC   developing products for the diagnosis or treatment of immunodeficiencies,
CC   e.g., X-linked agammaglobulinaemia, B cell immunodeficiencies, severe
CC   combined immunodeficiencies, autoimmune disorders e.g., systemic lupus
CC   erythematosus, rheumatoid arthritis, multiple sclerosis, autoimmune
CC   thyroiditis, autoimmune haemolytic anaemia, Goodpasture's syndrome,
CC   Grave's disease, diabetes mellitus, dermatitis, inflammatory conditions
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CC   including septic shock, sepsis, reperfusion injury, inflammatory bowel
CC   disease, Crohn's disease, haematopoietic disorders, respiratory
CC   disorders e.g., asthma and allergy, gastrointestinal disorders e.g.,
CC   inflammatory bowel disease), cancers e.g., gastric, ovarian, lung,
CC   liver, bladder and breast), central nervous system (CNS) disorders e.g.,
CC   ischaemic brain injury and/or stroke, neurodegenerative disorders e.g.,
CC   Parkinson's disease and Alzheimer's disease, AIDS-related dementia and
CC   prion disease, cardiovascular disorders e.g., myocarditis, arrhythmias,
CC   atherosclerosis, inflammatory disorders e.g., hepatitis, gout, trauma,
CC   pancreatitis, sarcoidosis and allogenic transplant rejection, blood-
CC   related disorder (thrombosis, arterial thrombosis, atherosclerosis),
CC   hyperproliferative disorders, respiratory disorders e.g. rhinitis,
CC   sinusitis, tonsilitis, lung cancer, allergic disorders, pneumonitis,
CC   renal disorders. e.g. acute glomerulonephritis, neurological diseases,
CC   liver disorders, endocrine disorders e.g., hyperthyroidism, Addison's
CC   disease, hyperpituitarism, infectious diseases and reproductive system
CC   disorders e.g. endometriosis. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 274;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 3
AAE27121
ID   AAE27121 standard; Protein; 298 AA.
XX
AC   AAE27121;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Human gene 25 encoded secreted protein HTEEB42, SEQ ID NO:76.
XX
KW   Human; secreted protein; autoimmune disease; hyperproliferative disorder;
KW   rheumatoid arthritis; neoplasm; cerebrovascular disorder; angiogenesis;
KW   cerebral ischaemia; cardiovascular disorder; nervous system disorder;
KW   cardiac arrest; Alzheimer's disease; ocular disorder; wound healing;
KW   infection; corneal infection; skin aging; food additive; preservative;
KW   tissue regeneration; immunosuppressive; antiproliferative; cytostatic;
KW   cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective;
KW   antibacterial; virucide; fungicide; ophthalmological; gene therapy;
KW   vulnerary.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /label= Signal_peptide
FT   Protein         23..298
FT                   /note= "Mature human secreted protein"
FT   Misc-difference 42
FT                   /label= Unknown
FT                   /note= "Encoded by GWG"
FT   Misc-difference 58
FT                   /label= Unknown
FT                   /note= "Encoded by TSC"
XX
PN   US2002076756-A1.
XX
PD   20-JUN-2002.
XX
PF   11-MAY-2001; 2001US-0853161.
XX
PR   02-FEB-2001; 2001US-265583P.
XX
PA   (RUBE/) RUBEN S M.
PA   (ROSE/) ROSEN C A.
PA   (LIYY/) LI Y.
PA   (ZENG/) ZENG Z.
PA   (KYAW/) KYAW H.
PA   (FISC/) FISCHER C L.
PA   (LIHH/) LI H.
PA   (SOPP/) SOPPET D R.
PA   (GENT/) GENTZ R L.
PA   (WEIY/) WEI Y.
PA   (MOOR/) MOORE P A.
PA   (YOUN/) YOUNG P E.
PA   (GREE/) GREENE J M.
PA   (FERR/) FERRIE A M.
XX
PI   Ruben SM,  Rosen CA,  Li Y,  Zeng Z,  Kyaw H,  Fischer CL,  Li H;
PI   Soppet DR,  Gentz RL,  Wei Y,  Moore PA,  Young PE,  Greene JM;
PI   Ferrie AM;
XX
DR   WPI; 2002-574454/61.
DR   N-PSDB; AAD44878.
XX
PT   New nucleic acid molecules encoding 28 human secreted proteins, useful
PT   for diagnosing, preventing, treating or ameliorating medical conditions
PT   and as food additives or preservatives  -
XX
PS   Claim 11; Page 186-187; 209pp; English.
XX
CC   AAD44854-AAD44984 represent cDNAs corresponding to 28 human secreted
CC   protein genes, and AAE27097-AAE27137 represent the proteins they encode.
CC   AAE27138-AAE27164 represent human secreted protein fragments. The genes
CC   and their corresponding secreted proteins are useful for preventing,
CC   treating or ameliorating medical conditions, e.g., by protein or gene
CC   therapy. Secreted protein sequences of the invention are useful for the
CC   diagnosis or treatment of disorders such as autoimmune diseases (e.g.
CC   rheumatoid arthritis), hyperproliferative disorders (e.g. neoplasms of
CC   the breast or liver), cerebrovascular disorders (e.g. cerebral ischaemia,
CC   angiogenesis), cardiovascular disorders (e.g. cardiac arrest), nervous
CC   system disorders (e.g. Alzheimer's disease), infections caused by fungi,
CC   bacteria and viruses and ocular disorders (e.g. corneal infection). The
CC   polypeptides can also be used to aid wound healing and epithelial cell
CC   proliferation, to prevent skin aging due to sunburn, to maintain organs
CC   before transplantation, for supporting cell culture of primary tissues,
CC   to regenerate tissues and in chemotaxis. They can also be used as food
CC   additives or preservative to increase or decrease storage capabilities,
CC   fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors
CC   and other nutritional components. The present sequence represents a human
CC   secreted protein of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 274;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82
```

```
Qy          61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy         121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy         181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy         241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
               |||||||||||||||||||||||||||||||||||
Db         263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

```
RESULT 4
ABR47926
ID   ABR47926 standard; Protein; 298 AA.
XX
AC   ABR47926;
XX
DT   12-JUN-2003  (first entry)
XX
DE   Human secreted protein, SEQ ID 817.
XX
KW   Cardiant; antiarrhythmic; antiarteriosclerotic; vasotropic; cytostatic;
KW   vulnerary; antiinflammatory; nootropic; neuroprotective;
KW   antiparkinsonian; gene therapy; human; cardiovascular disorder.
XX
OS   Homo sapiens.
XX
PN   WO200295010-A2.
XX
PD   28-NOV-2002.
XX
PF   19-MAR-2002; 2002WO-US09785.
XX
PR   21-MAR-2001; 2001US-277340P.
PR   19-JUL-2001; 2001US-306171P.
PR   13-NOV-2001; 2001US-331287P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen CA,  Ruben SM;
XX
DR   WPI; 2003-129429/12.
XX
PT   Novel human secreted proteins, useful for detecting, preventing,
PT   diagnosing, prognosticating, treating and/or ameliorating
PT   cardiovascular disorders such as arrhythmia -
XX
PS   Claim 13; SEQ ID 817; 1881pp; English.
XX
CC   The present invention relates to novel human secreted proteins
CC   (ABR47633-ABR48145) and their coding sequences (ACC50344-ACC50856). The
CC   proteins and their coding sequences are useful for the preparation of a
CC   diagnostic or pharmaceutical composition for diagnosing or treating a
CC   cardiovascular disorder (e.g., arrhythmia, tachycardia, cardiac arrest,
CC   coronary arteriosclerosis and myocardial ischaemia), neural disorders,
CC   immune system disorders, muscular disorders, reproductive disorders,
CC   gastrointestinal disorders, pulmonary disorders, renal disorders,
CC   proliferative disorders and/or cancerous diseases and conditions, for
CC   wound healing and epithelial cell proliferation, to treat inflammation or
CC   infection, for treating thrombosis and arteriosclerosis, for treating or
CC   preventing neural damage which occurs in neuronal disorders or
CC   neurodegenerative conditions such as Alzheimer's disease and Parkinson's
CC   disease, to enhance bone and periodontal regeneration and aid in tissue
CC   transplants or bone grafts, to prevent skin aging or hair loss, to
CC   stimulate growth and differentiation of haematopoietic cells and bone
CC   marrow cells when used in combination with other cytokines, to maintain
CC   organs before transplantation or for supporting cell culture of primary
CC   tissues, to increase or decrease differentiation or proliferation of
CC   embryonic stem cells, or to modulate mammalian characteristics or
CC   metabolism.
CC   Note: The sequence data for this patent was published in electronic
CC   format and is available from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 274;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy           1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy          61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy         121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy         181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy         241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
               |||||||||||||||||||||||||||||||||||
Db         263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

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RESULT 5
ABU64994
ID   ABU64994 standard; Protein; 298 AA.
XX
AC   ABU64994;
XX
DT   15-MAY-2003  (first entry)
XX
DE   Human secreted protein gene 25, protein.
XX
KW   Secreted protein; immunodeficiency; multiple sclerosis;
KW   severe combined immunodeficiency; autoimmune disorder; cancer;
KW   rheumatoid arthritis; diabetes mellitus; haematopoietic disorder;
KW   inflammatory condition; septic shock; inflammatory bowel disease;
KW   Crohn's disease; respiratory disorder; asthma; allergy; stroke;
KW   gastrointestinal disorder; central nervous system disorder;
KW   ischaemic brain injury; neurodegenerative disorder; Parkinson's disease;
KW   Alzheimer's disease; cardiovascular disorder; atherosclerosis;
KW   blood-related disorder; thrombosis; atherosclerosis; renal disorder;
KW   hyperproliferative disorder; acute glomerulonephritis; Addison's disease;
KW   endocrine disorder; liver disease; reproductive system disorder;
KW   endometriosis; infectious disease; pancreatic disorder; vaccine;
KW   wound repair; angiogenesis; lymphatic disorder; hair loss; body weight;
KW   body height; hair colour; human.
XX
OS   Homo sapiens.
XX
PN   US2002172994-A1.
XX
PD   21-NOV-2002.
XX
PF   11-MAY-2001; 2001US-0852797.
XX
PR   14-MAR-1997;   97US-040710P.
PR   14-MAR-1997;   97US-040762P.
PR   30-MAY-1997;   97US-048100P.
PR   30-MAY-1997;   97US-048189P.
PR   30-MAY-1997;   97US-048357P.
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PR 30-MAY-1997; 97US-050934P.
PR 06-JUN-1997; 97US-048970P.
PR 05-SEP-1997; 97US-057765P.
PR 19-DEC-1997; 97US-068368P.
PR 02-FEB-2001; 2001US-265583P.
PR 12-MAR-1998; 98WO-US04858.
PR 11-SEP-1998; 98US-0152060.
XX
PA (RUBE/) RUBEN S M.
PA (ROSE/) ROSEN C A.
PA (LIYY/) LI Y.
PA (ZENG/) ZENG Z.
PA (KYAW/) KYAW H.
PA (FISC/) FISCHER C L.
PA (LIHH/) LI H.
PA (SOPP/) SOPPET D R.
PA (GENT/) GENTZ R L.
PA (WEIY/) WEI Y.
PA (MOOR/) MOORE P A.
PA (YOUN/) YOUNG P E.
PA (GREE/) GREENE J M.
PA (FERR/) FERRIE A M.
XX
PI Ruben SM, Rosen CA, Li Y, Zeng Z, Kyaw H, Fischer CL, Li H;
PI Soppet DR, Gentz RL, Wei Y, Moore PA, Young PE, Greene JM;
PI Ferrie AM;
XX
DR WPI; 2003-310989/30.
DR N-PSDB; ABX96990.
XX
PT New human secreted polypeptides and polynucleotides for diagnosing,
PT prognosing, preventing and treating immune, hyperproliferative, liver,
PT kidney, reproductive disorders and for identifying modulators of
PT therapeutic use -
XX
PS Claim 11; Page 186; 209pp; English.
XX
CC The invention relates to an isolated polypeptide comprising an amino acid
CC sequence at least 95% identical to sequence of 28 human secreted
CC proteins, their fragment, polypeptide domain, epitope, secreted form,
CC variant, allelic variant, or species homologue, or the encoded sequence
CC included in ATCC 97921 and 97922. Also included are the encoding
CC nucleic acids, recombinant vectors, host cells, antibodies, and genes.
CC The proteins and nucleic acids are useful for diagnosing, preventing,
CC treating, prognosing or ameliorating a medical condition e.g.
CC immunodeficiencies (e.g. X-linked agammaglobulinaemia, B cell
CC immunodeficiencies, severe combined immunodeficiencies), autoimmune
CC disorders (e.g. systemic erythematosus, rheumatoid arthritis, multiple
CC sclerosis, autoimmune thyroiditis, autoimmune haemolytic anaemia,
CC Goodpasture's syndrome, Grave's disease, diabetes mellitus, dermatitis),
CC haematopoietic disorders, inflammatory conditions (e.g. septic shock,
CC sepsis, reperfusion injury, inflammatory bowel disease, Crohn's disease),
CC respiratory disorders (e.g. asthma and allergy), gastrointestinal
CC disorders, cancers (e.g. gastric, ovarian, lung, bladder, liver and
CC breast), central nervous system (CNS) disorders (e.g. ischaemic brain
CC injury and/or stroke, traumatic brain injury), neurodegenerative
CC disorders (e.g. Parkinson's disease and Alzheimer's disease, AIDS-related
CC dementia, and prion disease), cardiovascular disorders (e.g.
CC atherosclerosis, myocarditis, cardiovascular disease, and cardiopulmonary
CC bypass complications), inflammation (e.g. hepatitis, gout, trauma,
CC pancreatitis, sarcoidosis, dermatitis, allogenic transplant rejection),
CC blood-related disorders (thrombosis, arterial thrombosis),
CC hyperproliferative disorders, renal disorders (e.g. acute
CC glomerulonephritis), endocrine disorders (e.g. Addison's disease,
CC hyperthyroidism, hyperpituitarism), liver diseases and disorders,
CC reproductive system disorders (e.g. endometriosis), infectious diseases,
CC and pancreatic disorders. Many other diseases and disorders are listed in
CC the specification. They also useful as a vaccine adjuvant. Further they
CC are useful to enhance or inhibit complement mediated cell lysis, for
CC stimulating wound and tissue repair, angiogenesis, and the repair of
CC vascular or lymphatic diseases or disorders. They are also useful
CC to prevent hair loss, to modulate mammalian characteristics such as body
CC height, weight, hair colour, and to increase or decrease storage
CC capabilities, fat content, lipid, protein, carbohydrate, vitamins,
CC minerals, cofactors or other nutritional components. The proteins are
CC also useful for identifying binding partners. The present sequence
CC represents a secreted protein of the invention.
XX
SQ Sequence 298 AA;

Query Match 99.3%; Score 274; DB 24; Length 298;
Best Local Similarity 100.0%; Pred. No. 1.2e-260;
Matches 276; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
```

RESULT 6
ABR00172
ID ABR00172 standard; Protein; 298 AA.
XX
AC ABR00172;
XX
DT 03-APR-2003 (first entry)
XX
DE Human gene 162 encoded secreted protein HTEEB42, SEQ ID NO:461.
XX
KW Human; secreted protein; digestive disorder; gastrointestinal disorder;
KW mouth; oesophagus; stomach; small intestine; large intestine; liver;
KW biliary tract; pancreas; cancer; tumour; hyperproliferative disorder;
KW immune disorder; inflammation; infection; wound healing; drug screening;
KW chromosome identification; chromosome mapping; cytostatic; gene therapy;
KW antiinflammatory; immunosuppressive; vulnerary; chromosome 21q21.2.
XX
OS Homo sapiens.
XX
PN WO200276488-A1.
XX
PD 03-OCT-2002.
XX
PF 19-MAR-2002; 2002WO-US08276.
XX
PR 21-MAR-2001; 2001US-277340P.
PR 19-JUL-2001; 2001US-306171P.
PR 13-NOV-2001; 2001US-331287P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-029900/02.
DR N-PSDB; ABZ71351.
XX
PT New human secreted proteins and nucleic acids, useful for detecting,
PT preventing, diagnosing, prognosticating, treating and/or ameliorating
PT e.g. gastrointestinal diseases and disorders, or cancers -
XX
PS Claim 13; Page 1046-1047; 1216pp; English.

```
XX
CC   ABZ71190-ABZ71478 represent cDNAs corresponding to 178 human secreted
CC   protein genes, and ABP00011-ABP00299 represent the proteins they encode.
CC   ABZ71479-ABZ71540 represent human secreted protein genomic fragments. The
CC   invention also encompasses antibodies specific for the secreted proteins,
CC   the use of the secreted proteins in drug screening, and recombinant
CC   vectors and host cells comprising a nucleic acid of the invention. The
CC   secreted proteins, nucleic acids encoding them, antibodies or antibody
CC   fragments specific for the secreted proteins, and modulators of protein
CC   activity are useful for diagnosing, treating, ameliorating or preventing
CC   digestive disorders. Such conditions include disorders of the mouth,
CC   oesophagus, stomach, small intestine, large intestine, liver, biliary
CC   tract and pancreas, and include cancers of these organs and tissues. The
CC   secreted proteins and their nucleic acids may also be used in the
CC   treatment of immune disorders, inflammation, infection,
CC   hyperproliferative disorders, and to promote wound healing. Nucleic acids
CC   of the invention may be used for chromosome identification, chromosome
CC   mapping, in gene therapy, for identifying individuals from minute
CC   biological samples, as hybridisation probes, and as molecular weight
CC   markers. The present sequence represents a human secreted protein of the
CC   invention.
XX
SQ   Sequence   298 AA;

  Query Match             99.3%;  Score 274;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         83 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 142

Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 202

Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              |||||||||||||||||||||||||||||||||||||
Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 7
AAW85457
ID   AAW85457 standard; Protein; 298 AA.
XX
AC   AAW85457;
XX
DT   25-FEB-1999  (first entry)
XX
DE   Secreted protein encoded by clone ct864_4.
XX
KW   Secreted protein; nutritional activity; immune stimulating; vaccine;
KW   suppressing activity; haematopoiesis regulating activity;
KW   tissue growth activity; activin; inhibin activity; chemotactaxis;
KW   chemokinetic activity; haemostasis; thrombolytic activity; receptor;
KW   ligand; anti-inflammatory; cadherin; tumour invasion suppressor;
KW   tumour inhibition; gene therapy.
XX
OS   Homo sapiens.
XX
PN   WO9842739-A2.
XX
PD   01-OCT-1998.
XX
PF   20-MAR-1998;   98WO-US05653.
XX
PR   19-MAR-1998;   98US-0044466.
PR   21-MAR-1997;   97US-0822167.
XX
PA   (GEMY ) GENETICS INST INC.
XX
PI   Agostino MJ,  Jacobs K,  Lavallie ER,  McCoy JM,  Merberg D;
PI   Racie LA,  Spaulding V,  Treacy M;
XX
DR   WPI; 1998-609890/51.
DR   N-PSDB; AAV82780.
XX
PT   New polynucleotides encoding secreted human proteins - derived from
PT   human foetal brain, adult brain, foetal kidney, placenta or adult
PT   pineal gland cDNA libraries.
XX
PS   Claim 17; Page 73-74; 113pp; English.
XX
CC   The present sequence represents a secreted protein. The polynucleotide
CC   and secreted protein are predicted to have biological activities which
CC   would make them suitable for treating, preventing or ameliorating medical
CC   conditions in humans and animals, although no supporting data is given.
CC   Suggested activities include nutritional activity, immune stimulating
CC   (e.g. as vaccines) or suppressing activity, haematopoiesis regulating
CC   activity, tissue growth activity, activin/inhibin activity,
CC   chemotactic/chemokinetic activity, haemostatic and thrombolytic activity,
CC   receptor/ligand activity, anti-inflammatory activity, cadherin/tumour
CC   invasion suppressor activity, and tumour inhibition activity (no data is
CC   given in the specification to support these activities). The
CC   polynucleotide is also stated to be useful for gene therapy.
XX
SQ   Sequence   298 AA;

  Query Match             87.0%;  Score 240;  DB 19;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 3e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 8
AAU00512
ID   AAU00512 standard; Protein; 298 AA.
XX
AC   AAU00512;
XX
DT   09-MAY-2001  (first entry)
XX
DE   Human junctional adhesion protein (JAM2).
XX
KW   Junctional adhesion protein; JAM2; cellular localisation;
KW   cellular expression; immunoprecipitation; stroke; phosphorylation;
KW   glycosylation; paracellular migration; inflammatory disease;
KW   arthritis; asthma; rheumatoid arthritis; inflammatory bowel disease;
KW   Crohn's disease.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
```

```
FT   Peptide          1..20
FT                    /note= "Possible signal peptide #1"
FT   Peptide          1..28
FT                    /note= "Possible signal peptide #2"
FT   Protein          21..298
FT                    /note= "Possible mature JAM2 #1"
FT   Protein          29..298
FT                    /note= "Possible mature JAM2 #2"
FT   Domain           237..254
FT                    /note= "Transmembrane domain"
XX
PN   WO200114404-A1.
XX
PD   01-MAR-2001.
XX
PF   23-AUG-2000; 2000WO-US23158.
XX
PR   24-AUG-1999;   99US-0150459.
XX
PA   (TEXA-) TEXAS BIOTECHNOLOGY CORP.
XX
PI   Cunningham S,  Trindad Arrate Barros M;
XX
DR   WPI; 2001-218425/22.
DR   N-PSDB; AAS00512.
XX
PT   Novel nucleic acids encoding human junctional adhesion protein useful
PT   for producing antibodies that are suitable for therapeutic purposes -
XX
PS   Claim 4; Page 46-47; 51pp; English.
XX
CC   The sequence represents a human junctional adhesion molecule 2 (JAM2).
CC   The polynucleotide encoding the polypeptide is useful for recombinant
CC   production of JAM-2 protein, which in turn is useful for the production
CC   of antibodies. The antibodies may be used for probing cellular
CC   localisation and/or expression of JAM2 in tissues under normal and
CC   disease states, for immunoprecipitating JAM2 protein from cells and/or
CC   stroke tissues to determine whether it is modified by glycosylation and
CC   phosphorylation, and for determining JAM2 function. The antibodies
CC   inhibit interaction of JAM2 with inflammatory cells or influences their
CC   paracellular migration, and is therefore useful for alleviating
CC   inflammatory diseases such as arthritis, asthma, rheumatoid arthritis,
CC   inflammatory bowel disease and Crohn's disease.
XX
SQ   Sequence   298 AA;

  Query Match             87.0%;  Score 240;  DB 22;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 3e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy          97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 9
ABP61801
ID   ABP61801 standard; Protein; 298 AA.
XX
AC   ABP61801;
XX
DT   04-OCT-2002  (first entry)
XX
DE   Human polypeptide SEQ ID NO 155.
XX
KW   Human; cytostatic; antirheumatic; antiarthritic; vulnerary; analgesic;
KW   antiinflammatory; antibacterial; immunosuppressive; antiparkinsonian;
KW   neuroprotective; nootropic; osteopathic; haemostatic; vasotropic;
KW   antiulcer; fungicide; antidiabetic; antiasthmatic; antiallergic;
KW   immunostimulant; antiparasitic; secreted protein; transmembrane protein;
KW   cytokine; cell proliferation; cell differentiation; autoimmune disease;
KW   stem cell; growth factor; nervous system disease; neuropathy;
KW   Alzheimer's disease; Parkinson's disease; Huntington's disease;
KW   osteoporosis; severe combined immunodeficiency; SCID; infection;
KW   multiple sclerosis; rheumatoid arthritis; gene therapy.
XX
OS   Homo sapiens.
XX
PN   US2002065394-A1.
XX
PD   30-MAY-2002.
XX
PF   22-DEC-2000; 2000US-0745763.
XX
PR   18-MAR-1998;   98US-0040963.
XX
PA   (JACO/) JACOBS K.
PA   (MCCO/) MCCOY J M.
PA   (LAVA/) LAVALLIE E R.
PA   (COLL/) COLLINS-RACIE L A.
PA   (EVAN/) EVANS C.
PA   (MERB/) MERBERG D.
PA   (TREA/) TREACY M.
PA   (SPAU/) SPAULDING V.
XX
PI   Jacobs K,  McCoy JM,  LaVallie ER,  Collins-Racie LA,  Evans C;
PI   Merberg D,  Treacy M,  Spaulding V;
XX
DR   WPI; 2002-582343/62.
DR   N-PSDB; ABQ92017.
XX
PT   Novel secreted or transmembrane protein and polynucleotide encoding the
PT   protein, useful for diagnosis and treatment of neurological disorders,
PT   cancer, autoimmune diseases, bone disorders and lung or liver fibrosis
PT   -
XX
PS   Claim 54; Page 116-117; 284pp; English.
XX
CC   The invention relates to human secreted or transmembrane protein (I),
CC   their fragments and is encoded by specific complementary deoxyribonucleic
CC   acid (cDNA) inserts (II), where the protein is substantially free from
CC   other mammalian proteins. (I) are useful for preventing, treating or
CC   ameliorating a medical condition, especially immunological treatment or
CC   prevention of tumours. (I) exhibits activity relating to angiogenesis,
CC   cytokine, cell proliferation, cell differentiation, antiinflammatory,
CC   stem cell growth factor activity and activin or inhibin-related
CC   activities. (I) can be used to manipulate stem cells in culture to give
CC   rise to neuroepithelial cells that can be used to augment or replace
CC   cells damaged by illness, autoimmune disease, accidental damage or
CC   genetic disorders. (I) induces the proliferation of neural cells and
CC   regeneration of nerve and brain tissue and is useful for the treatment of
CC   central and peripheral nervous system diseases and neuropathies, such as
CC   Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC   lateral sclerosis. (I) is involved in chemotactic or chemokinetic
CC   activity, regulation of haematopoiesis and is useful for treating myeloid
CC   or lymphoid cell disorders, platelet disorders such as thrombocytopaenia
CC   and for regeneration of bone, cartilage, tendon, ligament and/or nerve
CC   tissue growth and in tissue repair, healing of burns, incisions, ulcers,
CC   for treating osteoporosis, osteoarthritis, bone degenerative disorders or
CC   periodontal disease. (I) is also useful for gut protection or
CC   regeneration and treatment of lung or liver fibrosis, reperfusion injury
CC   in various tissues, various immune deficiencies and disorders including
CC   severe combined immunodeficiency (SCID), bacterial or fungal infections,
CC   autoimmune disorders e.g. multiple sclerosis, rheumatoid arthritis,
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CC   diabetes mellitus, myasthenia gravis, allergic reactions and conditions,
CC   such as asthma or other respiratory problems. (II) is useful to express
CC   recombinant protein, as markers for tissues in which the corresponding
CC   protein is preferentially expressed and in gene therapy. The present
CC   sequence is that of a polypeptide of the invention.
XX
SQ   Sequence   298 AA;

  Query Match             87.0%;  Score 240;  DB 23;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 3e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 10
AAO16452
ID   AAO16452 standard; protein; 298 AA.
XX
AC   AAO16452;
XX
DT   17-APR-2003  (first entry)
XX
DE   Human junctional adhesion molecule 2 (huJAM2).
XX
KW   Human; gene therapy; extracellular region; junctional adhesion molecules;
KW   huJAM; immune system disorder; immune deficiency; autoimmune disorder;
KW   inflammatory disorder; cancer; wound healing; cardiovascular disease;
KW   full-length membrane-bound huJAM protein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..28
FT                   /label= Signal_peptide
FT   Domain          29..236
FT                   /note= "Extracellular domain; Specifically claimed
FT                   region"
FT   Protein         29..298
FT                   /note= "Mature huJAM2"
XX
PN   WO2003008541-A2.
XX
PD   30-JAN-2003.
XX
PF   05-JUL-2002; 2002WO-US19800.
XX
PR   16-JUL-2001; 2001US-305752P.
PR   05-FEB-2002; 2002US-354345P.
XX
PA   (ELIL ) LILLY & CO ELI.
XX
PI   Heuer JG,  Smith RC,  Su EW;
XX
DR   WPI; 2003-221848/21.
DR   N-PSDB; AAL51599.
XX
PT   New extracellular human junctional adhesion molecule (huJAM)
PT   polypeptide, useful for treating an immune system disorder such as an
PT   immune deficiency or an inflammatory disorder, cancer, wound healing,
PT   or a cardiovascular disease  -
XX
PS   Disclosure; Fig 1; 131pp; English.
XX
CC   The invention comprises the DNA and protein sequences of the
CC   extracellular region of human junctional adhesion molecules (huJAM). The
CC   extracellular huJAM DNA and protein sequences are useful in the treatment
CC   of: immune system disorders (e.g. immune deficiency); autoimmune
CC   disorders; inflammatory disorders; cancer; wound healing; or a
CC   cardiovascular disease. The present amino acid sequence represents the
CC   full-length membrane-bound huJAM2 protein.
XX
SQ   Sequence   298 AA;

  Query Match             87.0%;  Score 240;  DB 24;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 3e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 11
AAY08060
ID   AAY08060 standard; Protein; 312 AA.
XX
AC   AAY08060;
XX
DT   11-SEP-2000  (first entry)
XX
DE   Human PRO245 protein.
XX
KW   Inflammatory cell infiltration; immune response; T cell proliferation;
KW   anti-inflammatory; anti-autoimmune; anti-diabetic; spondyloarthropathy;
KW   T cell-mediated disease; spondyloarthropathy; sclerosis; renal disease;
KW   inflammatory myopathy; hemolytic anemia; thrombocytopenia; thyroiditis;
KW   diabetes mellitus; demyelinating polyneuropathy; Guillain-Barre syndrome;
KW   multiple sclerosis; polyneuropathy; hepatitis; cirrhosis; enteropathy;
KW   sclerosing cholangitis; inflammatory bowel disease; Whipple's disease;
KW   skin disease; dermatitis; psoriasis; asthma; allergic rhinitis; tumor;
KW   food hypersensitivity; urticaria; eosinophilic pneumonia; transplant;
KW   idiopathic pulmonary fibrosis; graft rejection; PRO245; human.
XX
OS   Homo sapiens.
XX
PN   WO9914241-A2.
XX
PD   25-MAR-1999.
XX
PF   17-SEP-1998;   98WO-US19437.
XX
PR   17-SEP-1997;   97US-0059119.
PR   18-SEP-1997;   97US-0059263.
PR   28-OCT-1997;   97US-0063550.
PR   12-NOV-1997;   97US-0065186.
PR   21-NOV-1997;   97US-0066364.
PR   24-NOV-1997;   97US-0066770.
PR   04-JUN-1998;   98US-0088026.
XX
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```
PA   (GETH ) GENENTECH INC.
XX
PI   Fong S,  Goddard A,  Gurney AL,  Tumas D,  Wood WI;
XX
DR   WPI; 1999-229499/19.
DR   N-PSDB; AAX37664.
XX
PT   Composition containing novel polypeptide PRO245, its agonist or
PT   antagonist -
XX
PS   Example 1; Fig 2; 177pp; English.
XX
CC   This invention describes a novel composition containing (apart from a
CC   carrier or excipient), a novel PRO245 polypeptide (I), its agonist or
CC   antagonist, or their fragments, for modulating: (i) infiltration of
CC   inflammatory cells into tissue; (ii) an immune response; or (iii) T cell
CC   proliferation. The composition increases or decreases any of the effects
CC   (i)-(iii). The products of the invention have anti-inflammatory,
CC   anti-autoimmune and anti-diabetic activity. (I), and its (ant)agonists
CC   and their fragments, are used to treat immune-related diseases,
CC   particularly T cell-mediated diseases. The diseases treated include
CC   systemic lupus erythematosus, rheumatoid arthritis, juvenile chronic
CC   arthritis, spondyloarthropathies, systemic sclerosis (scleroderma),
CC   idiopathic inflammatory myopathies (dermatomyositis, polymyositis),
CC   Sjogren's syndrome, systemic vasculitis, sarcoidosis, autoimmune
CC   hemolytic anemia (immune pancytopenia, paroxysmal nocturnal
CC   hemoglobinuria), autoimmune thrombocytopenia (idiopathic thrombocytopenic
CC   purpura immune-mediated thrombocytopenia), thyroiditis (Grave's disease,
CC   Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC   thyroiditis), diabetes mellitus, immune-mediated renal disease
CC   (glomerulonephritis, tubulointerstitial nephritis), multiple sclerosis,
CC   idiopathic demyelinating polyneuropathy, Guillain-Barre syndrome, chronic
CC   inflammatory demyelinating polyneuropathy, infectious hepatitis
CC   (hepatitis A, B, C, D, E and other non-hepatotropic viruses), autoimmune
CC   chronic active hepatitis, primary biliary cirrhosis, granulomatous
CC   hepatitis, and sclerosing cholangitis, inflammatory bowel disease
CC   (ulcerative colitis: Crohn's disease), gluten-sensitive enteropathy, and
CC   Whipple's disease. Autoimmune or immune-mediated skin diseases including
CC   bullous skin diseases, erythema multiforme,contact dermatitis, psoriasis,
CC   asthma, allergic rhinitis, atopic dermatitis, food hypersensitivity,
CC   urticaria, eosinophilic pneumonia, idiopathic pulmonary fibrosis,
CC   hypersensitivity pneumonitis, and transplantation associated diseases
CC   (graft rejection, and graft-versus-host-disease). (I), its (ant)agonists
CC   or fragment can also be used as an adjuvant in treatment of tumors.
CC   Antibodies against (I) can also be used for diagnosing such diseases.
CC   This sequence represents the human PRO245 protein described in the
CC   invention.
XX
SQ   Sequence   312 AA;

  Query Match             83.3%;  Score 230;  DB 20;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 12
AAY23324
ID   AAY23324 standard; Protein; 312 AA.
XX
AC   AAY23324;
XX
DT   02-SEP-1999  (first entry)
XX
DE   A33 related antigen PRO245.
XX
KW   A33 related antigen; PRO301; PRO362; PRO245; inflammatory disease;
KW   tumour.
XX
OS   Homo sapiens.
XX
PN   WO9927098-A2.
XX
PD   03-JUN-1999.
XX
PF   20-NOV-1998;   98WO-US24855.
XX
PR   17-SEP-1998;   98WO-US19437.
PR   21-NOV-1997;   97US-0066364.
PR   20-MAR-1998;   98US-0078936.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Ashkenazi A,  Fong S,  Goddard A,  Gurney AL,  Napier MA;
PI   Tumas D,  Wood WI;
XX
DR   WPI; 1999-404743/34.
DR   N-PSDB; AAX81770.
XX
PT   Antigens PRO301, PRO362 and PRO245 related to A33
XX
PS   Example 3; Fig 11; 122pp; English.
XX
CC   The specification describes A33 related antigens PRO301, PRO362 and
CC   PRO245. The methods and compositions of the invention are useful for the
CC   treatment and diagnosis of inflammatory disease and tumours in mammals.
CC   Such inflammatory diseases include of inflammatory bowel disease,
CC   systemic lupus erythematosis, rheumatoid arthritis, juvenile chronic
CC   arthritis, spondyloarthropathies, systemic sclerosis, scleroderma,
CC   idiopathic inflammatory myopathies, dermatomyositis, polymyositis,
CC   Sjogren's syndrome, systemic vaculitis, sarcoidosis, autoimmune hemolytic
CC   anemia, immune pancytopenia, paroxysmal nocturnal hemoglobinuria,
CC   autoimmune thrombocytopenia, idiopathic thrombocytopenic purpura,
CC   immune-mediated thrombocytopenia, thyroiditis, Grave's disease,
CC   Hashimoto's thyroiditis, juvenile lymphocytic thyroiditis, atrophic
CC   thyroiditis, diabetes mellitus, immune-mediated renal disease,
CC   glomerulonephritis, tubulointerstitial nephritis, demyelinating diseases
CC   of the central and peripheral nervous systems such as multiple sclerosis,
CC   idiopathic polyneuropathy, hepatobiliary diseases, infectious hepatitis
CC   A, B, C, D, E, nonhepatotropic viruses, autoimmune chronic active
CC   hepatitis, primary biliary cirrhosis, granulomatous hepatitis, sclerosing
CC   cholangitis, inflammatory and fibrotic lung diseases, gluten-sensitive
CC   enteropathy, Whipple's disease, autoimmune or immune-mediated skin
CC   diseases allergic diseases of the lung such as eosinophilic pneumonias,
CC   idiopathic pulmonary fibrosis and hypersensitivity pneumonitis
CC   transplantation associated diseases disease. The present sequence
CC   represents PRO245.
XX
SQ   Sequence   312 AA;

  Query Match             83.3%;  Score 230;  DB 20;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178
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Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 13
AAY13354
ID   AAY13354 standard; Protein; 312 AA.
XX
AC   AAY13354;
XX
DT   25-JUN-1999  (first entry)
XX
DE   Amino acid sequence of protein PRO245.
XX
KW   Secreted protein; transmembrane protein; human; enterocolitis;
KW   Zollinger-Ellison syndrome; gastrointestinal ulceration;
KW   congenital microvillus atrophy; skin disease; cell growth;
KW   abnormal keratinocyte differentiation; psoriasis; epithelial cancer;
KW   Parkinson's disease; Alzheimer's disease; ALS; neuropathy;
KW   fibromodulin; dermal scarring; Usher Syndrome; Atrophia areata;
KW   anti-thrombotic; wound healing; tissue repair.
XX
OS   Homo sapiens.
XX
PN   WO9914328-A2.
XX
PD   25-MAR-1999.
XX
PF   16-SEP-1998;   98WO-US19330.
XX
PR   25-NOV-1997;   97US-0066840.
PR   17-SEP-1997;   97US-0059113.
PR   17-SEP-1997;   97US-0059115.
PR   17-SEP-1997;   97US-0059117.
PR   17-SEP-1997;   97US-0059119.
PR   17-SEP-1997;   97US-0059121.
PR   17-SEP-1997;   97US-0059122.
PR   17-SEP-1997;   97US-0059184.
PR   18-SEP-1997;   97US-0059263.
PR   18-SEP-1997;   97US-0059266.
PR   15-OCT-1997;   97US-0062125.
PR   17-OCT-1997;   97US-0062285.
PR   17-OCT-1997;   97US-0062287.
PR   21-OCT-1997;   97US-0063486.
PR   24-OCT-1997;   97US-0062814.
PR   24-OCT-1997;   97US-0062816.
PR   24-OCT-1997;   97US-0063045.
PR   24-OCT-1997;   97US-0063120.
PR   24-OCT-1997;   97US-0063121.
PR   24-OCT-1997;   97US-0063127.
PR   24-OCT-1997;   97US-0063128.
PR   27-OCT-1997;   97US-0063329.
PR   27-OCT-1997;   97US-0063327.
PR   28-OCT-1997;   97US-0063541.
PR   28-OCT-1997;   97US-0063542.
PR   28-OCT-1997;   97US-0063544.
PR   28-OCT-1997;   97US-0063549.
PR   28-OCT-1997;   97US-0063550.
PR   28-OCT-1997;   97US-0063564.
PR   29-OCT-1997;   97US-0063435.
PR   29-OCT-1997;   97US-0063704.
PR   29-OCT-1997;   97US-0063732.
PR   29-OCT-1997;   97US-0063738.
PR   29-OCT-1997;   97US-0063734.
PR   29-OCT-1997;   97US-0064215.
PR   29-OCT-1997;   97US-0063735.
PR   31-OCT-1997;   97US-0063870.
PR   31-OCT-1997;   97US-0064103.
PR   03-NOV-1997;   97US-0064248.
PR   07-NOV-1997;   97US-0064809.
PR   12-NOV-1997;   97US-0065186.
PR   17-NOV-1997;   97US-0065846.
PR   18-NOV-1997;   97US-0065693.
PR   21-NOV-1997;   97US-0066120.
PR   21-NOV-1997;   97US-0066364.
PR   24-NOV-1997;   97US-0066772.
PR   24-NOV-1997;   97US-0066466.
PR   24-NOV-1997;   97US-0066770.
PR   24-NOV-1997;   97US-0066511.
PR   24-NOV-1997;   97US-0066453.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Chen J,  Goddard A,  Gurney AL,  Pennica D,  Wood WI,  Yuan J;
XX
DR   WPI; 1999-229533/19.
DR   N-PSDB; AAX52225.
XX
PT   New isolated human genes and polypeptides used in, e.g. treatment of
PT   gastrointestinal ulceration
XX
PS   Claim 12; Fig 24; 320pp; English.
XX
CC   AAY13344-403 represent secreted and transmembrane human proteins.
CC   The cDNA sequences are obtained from cDNA libraries, prepared from
CC   fetal lung, fetal kidney, fetal brain, fetal liver and fetal retina.
CC   The encoded polypeptides have specific uses based on their homology to
CC   known polypeptides, e.g. PRO211 and PRO217 can be used for disorders
CC   associated with the preservation and maintenance of gastrointestinal
CC   mucosa and the repair of acute and chronic mucosal lesions
CC   (e.g. enterocolitis, Zollinger-Ellison syndrome, gastrointestinal
CC   ulceration and congenital microvillus atrophy), skin diseases associated
CC   with abnormal keratinocyte differentiation (e.g. psoriasis, epithelial
CC   cancers such as lung squamous cell carcinoma of the vulva and gliomas),
CC   potent effects on cell growth and development, diseases related to
CC   growth or survival of nerve cells including Parkinson's disease,
CC   Alzheimer's disease, ALS, neuropathies or cancer. PRO265 can be used as
CC   for fibromodulin, e.g. for reducing dermal scarring.  PRO264 can be used
CC   as a target for anti-tumor drugs. PRO533 may be used in the treatment
CC   of Usher Syndrome or Atrophia areata; PRO269 can be used as an
CC   anti-thrombotic agent; PRO287 polypeptides and portions may have
CC   therapeutic applications in wound healing and tissue repair; PRO317 can
CC   be used for treating problems of the kidney, uterus, endometrium, blood
CC   vessels, or related tissue, e.g. in the heart of genital tract.
XX
SQ   Sequence   312 AA;

  Query Match             83.3%;  Score 230;  DB 20;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 14
AAB33421
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ID AAB33421 standard; Protein; 312 AA.
XX
AC AAB33421;
XX
DT 29-JAN-2001 (first entry)
XX
DE Human PRO245 protein UNQ219 SEQ ID NO:36.
XX
KW Human; immune related disease; diagnosis; antiinflammatory; cardiant;
KW dermatological; antiarthritic; antirheumatic; immunosuppressive;
KW haemostatic; antithyroid; antidiabetic; nootropic; neuroprotective;
KW antianaemic; hepatotropic; virucide; antipsoriatic; antiallergic;
KW antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis;
KW osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis;
KW idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis;
KW systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus;
KW autoimmune thrombocytopaenia; immune-mediated renal disease;
KW demyelinating disease; hepatobiliary disease; Whipple's disease;
KW inflammatory bowel disease; gluten-sensitive enteropathy;
KW autoimmune disease; immune-mediated skin disease; allergic disease;
KW immunological disease; transplantation associated disease;
KW graft rejection; graft-versus-host-disease.
XX
OS Homo sapiens.
XX
PN WO200053758-A2.
XX
PD 14-SEP-2000.
XX
PF 02-MAR-2000; 2000WO-US05841.
XX
PR 08-MAR-1999; 99WO-US05028.
PR 10-MAR-1999; 99US-0123618.
PR 12-MAR-1999; 99US-0123957.
PR 23-MAR-1999; 99US-0125775.
PR 12-APR-1999; 99US-0128849.
PR 20-APR-1999; 99WO-US08615.
PR 28-APR-1999; 99US-0131445.
PR 04-MAY-1999; 99US-0132371.
PR 14-MAY-1999; 99US-0134287.
PR 02-JUN-1999; 99WO-US12252.
PR 23-JUN-1999; 99US-0141037.
PR 20-JUL-1999; 99US-0144758.
PR 26-JUL-1999; 99US-0145698.
PR 28-JUL-1999; 99US-0146222.
PR 01-SEP-1999; 99WO-US20111.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 29-OCT-1999; 99US-0162506.
PR 29-NOV-1999; 99WO-US28214.
PR 30-NOV-1999; 99WO-US28313.
PR 30-NOV-1999; 99WO-US28409.
PR 01-DEC-1999; 99WO-US28301.
PR 01-DEC-1999; 99WO-US28634.
PR 02-DEC-1999; 99WO-US28551.
PR 02-DEC-1999; 99WO-US28564.
PR 02-DEC-1999; 99WO-US28565.
PR 16-DEC-1999; 99WO-US30095.
PR 20-DEC-1999; 99WO-US30999.
PR 30-DEC-1999; 99WO-US31274.
PR 05-JAN-2000; 2000WO-US00219.
PR 06-JAN-2000; 2000WO-US00277.
PR 06-JAN-2000; 2000WO-US00376.
PR 11-FEB-2000; 2000WO-US03565.
PR 18-FEB-2000; 2000WO-US04341.
PR 18-FEB-2000; 2000WO-US04342.
PR 22-FEB-2000; 2000WO-US04414.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Goddard A, Gurney AL, Hebert C, Henzel W;
PI Kabakoff RC, Lu Y, Pan J, Pennica D, Shelton DL, Smith V;
PI Stewart TA, Tumas D, Watanabe CK, Wood WI, Yan M;
XX
DR WPI; 2000-572271/53.
DR N-PSDB; AAC58586.
XX
PT Sixty four PRO polypeptides, useful in the diagnosis and treatment of
PT immune related disorders, e.g. systemic lupus erythematosis, rheumatoid
PT arthritis, osteoarthritis, thyroiditis and diabetes mellitus -
XX
PS Claim 33; Fig 16; 309pp; English.
XX
CC The present invention describes sixty four human PRO proteins which can
CC be used in the treatment of immune related diseases. The human PRO
CC proteins, anti-PRO antibodies, agonists and antagonists are useful for
CC treating and diagnosing immune related disorders. The disorders are
CC selected from systemic lupus erythematosus, rheumatoid arthritis,
CC osteoarthritis, juvenile chronic arthritis, spondyloarthropathies,
CC systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's
CC syndrome, systemic vasculitis, sarcoidosis, autoimmune haemolytic
CC anaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus,
CC immune-mediated renal disease, demyelinating diseases of the central
CC and peripheral nervous systems, hepatobiliary diseases, inflammatory
CC bowel disease, gluten-sensitive enteropathy and Whipple's disease,
CC autoimmune or immune-mediated skin diseases, allergic diseases,
CC immunological diseases of the lung, and transplantation associated
CC diseases including graft rejection and graft-versus-host-disease.
CC AAC58397 to AAC58578 represent PCR primers and hybridisation probes used
CC in the isolation of human PRO sequences. AAC58579 to AAC58642 and
CC AAB33414 to AAB33477 represent human PRO polynucleotide and protein
CC sequences given in the exemplification of the present invention.
XX
SQ Sequence 312 AA;

Query Match 83.3%; Score 230; DB 21; Length 312;
Best Local Similarity 100.0%; Pred. No. 2.1e-217;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
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Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 15
AAB24401
ID AAB24401 standard; Protein; 312 AA.
XX
AC AAB24401;
XX
DT 07-NOV-2000 (first entry)
XX
DE Human PRO245 protein sequence SEQ ID NO:67.
XX
KW Human; PRO; promotion; inhibition; angiogenesis; cardiovascularisation;
KW diagnosis; trauma; wound; cancer; atherosclerosis; cardiac hypertrophy;
KW angiogenic; proliferative; cardiant; cardiovascular; antiatherosclerotic;
KW cytostatic; gene therapy; vaccine.
XX
OS Homo sapiens.
XX

PN WO200032221-A2.
XX
PD 08-JUN-2000.
XX
PF 30-NOV-1999; 99WO-US28313.
XX
PR 01-DEC-1998; 98WO-US25108.
PR 16-DEC-1998; 98US-0112850.
PR 12-JAN-1999; 99US-0115554.
PR 08-MAR-1999; 99WO-US05028.
PR 12-MAR-1999; 99US-0123957.
PR 28-APR-1999; 99US-0131445.
PR 14-MAY-1999; 99US-0134287.
PR 02-JUN-1999; 99WO-US12252.
PR 23-JUN-1999; 99US-0141037.
PR 20-JUL-1999; 99US-0144758.
PR 26-JUL-1999; 99US-0145698.
PR 01-SEP-1999; 99WO-US20111.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 29-OCT-1999; 99US-0162506.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Ferrara N, Gerber H, Hillan KJ, Goddard A;
PI Godowski PJ, Gurney AL, Klein RD, Kuo SS, Paoni NF, Smith V;
PI Watanabe CK, Williams PM, Wood WI;
XX
DR WPI; 2000-412154/35.
DR N-PSDB; AAA77562.
XX
PT Nucleic acids encoding PRO polypeptides useful for preventing,
PT diagnosing and treating diagnosing a cardiovascular, endothelial or
PT angiogenic disorders in mammals -
XX
PS Claim 72; Fig 28; 315pp; English.
XX
CC The present invention describes nucleic acids encoding PRO polypeptides
CC useful for preventing, diagnosing and treating diagnosing a
CC cardiovascular, endothelial or angiogenic disorder in mammals by
CC modulating cell proliferation, angiogenesis and cardiovascularisation,
CC and for identifying agonists and antagonists of these processes. The
CC nucleic acids and the proteins they encode may be used in the
CC prevention, treatment and diagnosis of diseases associated with
CC inappropriate PRO expression such as cardiovascular, endothelial or
CC angiogenic disorders in mammals (e.g. atherosclerosis, cancers and
CC cardiac hypertrophy). For example, the nucleic acids (NCs) and vectors
CC containing them and the PRO polypeptide may be used to treat disorders
CC associated with decreased PRO expression. AAA77510 to AAA77721 and
CC AAB24388 to AAB24435 represent nucleotide and protein sequences used in
CC the exemplification of the present invention.
XX
SQ Sequence 312 AA;

Query Match 83.3%; Score 230; DB 21; Length 312;
Best Local Similarity 100.0%; Pred. No. 2.1e-217;
Matches 230; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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GenCore version 5.1.6
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OM protein - protein search, using sw model

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	274	99.3	298	4	US-09-152-060-76	Sequence 76, Appl
2	230	83.3	312	4	US-09-254-465A-9	Sequence 9, Appli

ALIGNMENTS

RESULT 1
US-09-152-060-76
; Sequence 76, Application US/09152060
; Patent No. 6448230
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 28 Human Secreted Proteins
; FILE REFERENCE: PZ003P1.US
; CURRENT APPLICATION NUMBER: US/09/152,060
; CURRENT FILING DATE: 1998-09-11
; EARLIER APPLICATION NUMBER: PCT/US98/04858
; EARLIER FILING DATE: 1998-03-12
; EARLIER APPLICATION NUMBER: 60/040,762
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/040,710
; EARLIER FILING DATE: 1997-03-14
; EARLIER APPLICATION NUMBER: 60/050,934
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,100
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,357
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/048,189
; EARLIER FILING DATE: 1997-05-30
; EARLIER APPLICATION NUMBER: 60/057,765
; EARLIER FILING DATE: 1997-09-05
; EARLIER APPLICATION NUMBER: 60/048,970
; EARLIER FILING DATE: 1997-06-06
; EARLIER APPLICATION NUMBER: 60/068,368
; EARLIER FILING DATE: 1997-12-19
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
; LENGTH: 298
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (42)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (58)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-152-060-76

Query Match 99.3%; Score 274; DB 4; Length 298;
Best Local Similarity 100.0%; Pred. No. 2.5e-261;
Matches 276; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
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Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
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Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298
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RESULT 2
US-09-254-465A-9
; Sequence 9, Application US/09254465A
; Patent No. 6410708
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi J.
; APPLICANT: Fong, Sherman
; APPLICANT: Goddard, Audrey
; APPLICANT: Gurney, Austin L.
; APPLICANT: Napier, Mary A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Wood, William I.
; TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
; TITLE OF INVENTION: OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
; FILE REFERENCE: P1216R1(US)
; CURRENT APPLICATION NUMBER: US/09/254,465A
; CURRENT FILING DATE: 1999-03-05
; PRIOR APPLICATION NUMBER: PCT/US98/24855
; PRIOR FILING DATE: 1998-11-20
; PRIOR APPLICATION NUMBER: US 60/066,364
; PRIOR FILING DATE: 1997-11-21

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;  PRIOR APPLICATION NUMBER:  US 60/078,936
;  PRIOR FILING DATE:  1998-03-20
;  PRIOR APPLICATION NUMBER:  PCT/US98/19437
;  PRIOR FILING DATE:  1998-09-17
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 9
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-254-465A-9

  Query Match             83.3%;  Score 230;  DB 4;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 4.5e-218;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Job time : 13.9443 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:25:18 ; Search time 25.4843 Seconds
(without alignments)
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Title: US-09-852-797-76_COPY_23_298
Perfect score: 276
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Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 684280 seqs, 185983659 residues

Word size: 50

Total number of hits satisfying chosen parameters: 489

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Published_Applications_AA:*
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17: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep:*
18: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
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2	274	99.3	298	9	US-09-852-659A-76	Sequence 76, Appl
3	274	99.3	298	10	US-09-852-797-76	Sequence 76, Appl
4	240	87.0	298	9	US-09-745-763-38	Sequence 38, Appl
5	240	87.0	298	9	US-09-799-777-30	Sequence 30, Appl
6	240	87.0	298	15	US-10-139-849-2	Sequence 2, Appli
7	240	87.0	298	16	US-10-192-791-2	Sequence 2, Appli
8	230	83.3	312	10	US-09-909-320-64	Sequence 64, Appl
9	230	83.3	312	10	US-09-909-088B-64	Sequence 64, Appl
10	230	83.3	312	10	US-09-905-291A-64	Sequence 64, Appl
11	230	83.3	312	10	US-09-953-499-9	Sequence 9, Appli
12	230	83.3	312	10	US-09-902-853-64	Sequence 64, Appl
13	230	83.3	312	10	US-09-907-824-64	Sequence 64, Appl
14	230	83.3	312	10	US-09-907-841-64	Sequence 64, Appl
15	230	83.3	312	11	US-09-904-011-64	Sequence 64, Appl
16	230	83.3	312	11	US-09-906-742-64	Sequence 64, Appl
17	230	83.3	312	11	US-09-906-838-64	Sequence 64, Appl
18	230	83.3	312	11	US-09-907-613-64	Sequence 64, Appl
19	230	83.3	312	11	US-09-907-942-64	Sequence 64, Appl
20	230	83.3	312	11	US-09-904-859-64	Sequence 64, Appl
21	230	83.3	312	11	US-09-909-204-64	Sequence 64, Appl
22	230	83.3	312	11	US-09-904-820-64	Sequence 64, Appl
23	230	83.3	312	11	US-09-904-786-64	Sequence 64, Appl
24	230	83.3	312	11	US-09-906-646-64	Sequence 64, Appl
25	230	83.3	312	11	US-09-906-700-64	Sequence 64, Appl
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42	230	83.3	312	11	US-09-905-088-64	Sequence 64, Appl
43	230	83.3	312	11	US-09-907-575-64	Sequence 64, Appl
44	230	83.3	312	11	US-09-905-075-64	Sequence 64, Appl
45	230	83.3	312	11	US-09-902-759-64	Sequence 64, Appl

ALIGNMENTS

RESULT 1
US-09-853-161-76
; Sequence 76, Application US/09853161
; Patent No. US20020076756A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: 28 Human Secreted Proteins
; FILE REFERENCE: PZ003P3
; CURRENT APPLICATION NUMBER: US/09/853,161
; CURRENT FILING DATE: 2001-05-11
; PRIOR APPLICATION NUMBER: 60/265,583
; PRIOR FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: 09/152,060
; PRIOR FILING DATE: 1998-09-11
; PRIOR APPLICATION NUMBER: PCT/US98/04858
; PRIOR FILING DATE: 1998-03-12
; PRIOR APPLICATION NUMBER: 60/040,762
; PRIOR FILING DATE: 1997-03-14
; PRIOR APPLICATION NUMBER: 60/040,710
; PRIOR FILING DATE: 1997-03-14
; PRIOR APPLICATION NUMBER: 60/050,934
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,100
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,357
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/048,189
; PRIOR FILING DATE: 1997-05-30
; PRIOR APPLICATION NUMBER: 60/057,765
; PRIOR FILING DATE: 1997-09-05
; PRIOR APPLICATION NUMBER: 60/048,970
; PRIOR FILING DATE: 1997-06-06
; PRIOR APPLICATION NUMBER: 60/068,368
; PRIOR FILING DATE: 1997-12-19
; NUMBER OF SEQ ID NOS: 118
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
; LENGTH: 298

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;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-853-161-76

  Query Match             99.3%;  Score 274;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 4.5e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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RESULT 2
US-09-852-659A-76
; Sequence 76, Application US/09852659A
; Patent No. US20020077287A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P4
;  CURRENT APPLICATION NUMBER: US/09/852,659A
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 121
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-659A-76

  Query Match             99.3%;  Score 274;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 4.5e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
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Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

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US-09-852-797-76
; Sequence 76, Application US/09852797
; Patent No. US20020172994A1
; GENERAL INFORMATION:
;  APPLICANT: Rosen et al.
;  TITLE OF INVENTION: 28 Human Secreted Proteins
;  FILE REFERENCE: PZ003P2
;  CURRENT APPLICATION NUMBER: US/09/852,797
;  CURRENT FILING DATE:  2001-05-11
;  PRIOR APPLICATION NUMBER: 60/265,583
;  PRIOR FILING DATE: 2001-02-02
;  PRIOR APPLICATION NUMBER: 09/152,060
;  PRIOR FILING DATE: 1998-09-11
;  PRIOR APPLICATION NUMBER: PCT/US98/04858
;  PRIOR FILING DATE: 1998-03-12
;  PRIOR APPLICATION NUMBER: 60/040,762
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/040,710
;  PRIOR FILING DATE: 1997-03-14
;  PRIOR APPLICATION NUMBER: 60/050,934
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,100
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,357
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/048,189
;  PRIOR FILING DATE: 1997-05-30
;  PRIOR APPLICATION NUMBER: 60/057,765
;  PRIOR FILING DATE: 1997-09-05
;  PRIOR APPLICATION NUMBER: 60/048,970
;  PRIOR FILING DATE: 1997-06-06
;  PRIOR APPLICATION NUMBER: 60/068,368
;  PRIOR FILING DATE: 1997-12-19
;  NUMBER OF SEQ ID NOS: 118
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;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 76
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (42)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (58)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-852-797-76

  Query Match             99.3%;  Score 274;  DB 10;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 4.5e-260;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 60
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Db         23 YHKAYGFSAPKDQQVVTAVXYQEAILACKTPKKTVXSRLEWKKLGRSVSFVYYQQTLQGD 82

Qy         61 FKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQGQNLEEDTVTLEVLVAPAVPSCEVP 120
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Qy        121 SSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLENPRLGSQSTNSSYTMNTKTGTLQFN 180
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Qy        181 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 240
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Db        203 TVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNISGIIAAVVVVALVISVCGLGVCYAQ 262

Qy        241 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
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Db        263 RKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 4
US-09-745-763-38
; Sequence 38, Application US/09745763
; Patent No. US20020065394A1
;   GENERAL INFORMATION:
;        APPLICANT: Jacobs, Kenneth
;                   McCoy, John M.
;                   LaVallie, Edward R.
;                   Collins-Racie, Lisa A.
;                   Evans, Cheryl
;                   Merberg, David
;                   Treacy, Maurice
;                   Spaulding, Vikki
;        TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES
;                            ENCODING THEM
;        NUMBER OF SEQUENCES: 219
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Genetics Institute, Inc.
;             STREET: 87 CambridgePark Drive
;             CITY: Cambridge
;             STATE: MA
;             COUNTRY: U.S.A.
;             ZIP: 02140
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/745,763
;             FILING DATE: 18-Jun-2000
;             CLASSIFICATION: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Sprunger, Suzanne A.
;             REGISTRATION NUMBER: 41,323
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (617) 498-8284
;             TELEFAX: (617) 876-5851
;   INFORMATION FOR SEQ ID NO: 38:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: <Unknown>
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 38:
US-09-745-763-38

  Query Match             87.0%;  Score 240;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
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RESULT 5
US-09-799-777-30
; Sequence 30, Application US/09799777
; Patent No. US20020091244A1
;   GENERAL INFORMATION:
;        APPLICANT: Lal, Preeti
;                   Hillman, Jennifer L.
;                   Corley, Neil C.
;                   Guegler, Karl J.
;                   Baugh, Mariah
;                   Sather, Susan
;                   Shah, Purvi
;        TITLE OF INVENTION: HUMAN SIGNAL PEPTIDE-CONTAINING PROTEINS
;        NUMBER OF SEQUENCES: 154
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
;             STREET: 3174 PORTER DRIVE
;             CITY: PALO ALTO
;             STATE: CALIFORNIA
;             COUNTRY: USA
;             ZIP: 94304
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/799,777
;             FILING DATE: 06-Mar-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/002,485
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: BILLINGS, LUCY J.
;             REGISTRATION NUMBER: 36,749
;             REFERENCE/DOCKET NUMBER: PF-0459 US
;        TELECOMMUNICATION INFORMATION:
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;             TELEPHONE: (650) 855-0555
;             TELEFAX: (650) 845-4166
;   INFORMATION FOR SEQ ID NO: 30:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        IMMEDIATE SOURCE:
;             LIBRARY: DUODNOT02
;             CLONE: 1704050
;        SEQUENCE DESCRIPTION: SEQ ID NO: 30 :
US-09-799-777-30

  Query Match             87.0%;  Score 240;  DB 9;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 6
US-10-139-849-2
; Sequence 2, Application US/10139849
; Publication No. US20030079238A1
;   GENERAL INFORMATION:
;        APPLICANT: Cunningham, Sonia
;                   Barros, Maria Pia
;        TITLE OF INVENTION: A POLYNUCLEOTIDE ENCODING A HUMAN
;                            JUNCTIONAL ADHESION PROTEIN (JAM 2)
;        NUMBER OF SEQUENCES: 10
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Rockey, Milnamow & Katz, Ltd.
;             STREET: 180 N. Stetson Avenue, 2 Prudential Plaza,
;                     Suite 4700
;             CITY: Chicago
;             STATE: IL
;             COUNTRY: U.S.A.
;             ZIP: 60601
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/139,849
;             FILING DATE: 07-May-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/643,929
;             FILING DATE: 23-Aug-2000
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Katz, Martin L.
;             REGISTRATION NUMBER: 25,011
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 312-616-5400
;             TELEFAX: 312-616-5460
;   INFORMATION FOR SEQ ID NO: 2:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 298 amino acids
;             TYPE: amino acid
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-10-139-849-2

  Query Match             87.0%;  Score 240;  DB 15;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
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Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
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Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 7
US-10-192-791-2
; Sequence 2, Application US/10192791
; Publication No. US20030130166A1
; GENERAL INFORMATION:
;  APPLICANT: Texas Biotechnology Corporation
;  TITLE OF INVENTION: A Polynucleotide Encoding a Human Junctional Adhesion Protein (J
;  FILE REFERENCE: TEX4542P0430
;  CURRENT APPLICATION NUMBER: US/10/192,791
;  CURRENT FILING DATE:  2003-12-10
;  NUMBER OF SEQ ID NOS: 10
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 298
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-192-791-2

  Query Match             87.0%;  Score 240;  DB 16;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 9.2e-227;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


RESULT 8
US-09-909-320-64
; Sequence 64, Application US/09909320
; Patent No. US20020132240A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
```

```
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/909,320
;  CURRENT FILING DATE:  2002-01-04
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-909-320-64

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 9
US-09-909-088B-64
; Sequence 64, Application US/09909088B
; Patent No. US20020146709A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/909,088B
;  CURRENT FILING DATE:  2001-07-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
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;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-909-088B-64

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy          97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
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Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
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Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 10
US-09-905-291A-64
; Sequence 64, Application US/09905291A
; Patent No. US20020160374A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/905,291A
;  CURRENT FILING DATE:  2001-07-12
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-905-291A-64

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy          97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 11
US-09-953-499-9
; Sequence 9, Application US/09953499
; Publication No. US20020182206A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi J.
```

```
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Napier, Mary A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
;  TITLE OF INVENTION:  OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
;  FILE REFERENCE: P1216R1(US)
;  CURRENT APPLICATION NUMBER: US/09/953,499
;  CURRENT FILING DATE:  2001-09-14
;  PRIOR APPLICATION NUMBER: US/09/254,465
;  PRIOR FILING DATE: 1999-03-05
;  PRIOR APPLICATION NUMBER: PCT/US98/24855
;  PRIOR FILING DATE: 1998-11-20
;  PRIOR APPLICATION NUMBER: US 60/066,364
;  PRIOR FILING DATE: 1997-11-21
;  PRIOR APPLICATION NUMBER: US 60/078,936
;  PRIOR FILING DATE: 1998-03-20
;  PRIOR APPLICATION NUMBER: PCT/US98/19437
;  PRIOR FILING DATE: 1998-09-17
;  NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 9
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-953-499-9

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy          97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 12
US-09-902-853-64
; Sequence 64, Application US/09902853
; Publication No. US20020192659A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/902,853
;  CURRENT FILING DATE:  2001-07-10
;  PRIOR APPLICATION NUMBER: US/09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-902-853-64

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy          97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
               ||||||||||||||||||||||||||||||||||||||||||||||||||
Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288
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RESULT 13
US-09-907-824-64
; Sequence 64, Application US/09907824
; Publication No. US20020197671A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,824
;  CURRENT FILING DATE:  2001-07-17
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;   LENGTH: 312
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-09-907-824-64

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
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Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 14
US-09-907-841-64
; Sequence 64, Application US/09907841
; Publication No. US20020198366A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/907,841
;  CURRENT FILING DATE:  2001-11-20
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
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;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;    LENGTH: 312
;    TYPE: PRT
;    ORGANISM: Homo sapiens
US-09-907-841-64

  Query Match             83.3%;  Score 230;  DB 10;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


RESULT 15
US-09-904-011-64
; Sequence 64, Application US/09904011
; Publication No. US20030003530A1
; GENERAL INFORMATION:
;  APPLICANT: Genentech, Inc.
;  APPLICANT:  Ashkenazi, Avi
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Filvaroff, Ellen
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Gerber, Hanspeter
;  APPLICANT:  Gerritsen, Mary E.
;  APPLICANT:  Goddard, A.
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth, J.
;  APPLICANT:  Kljavin, Ivar J.
;  APPLICANT:  Mather, Jennie P.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William, I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: 10466-14
;  CURRENT APPLICATION NUMBER: US/09/904,011
;  CURRENT FILING DATE:  2001-07-11
;  PRIOR APPLICATION NUMBER: 09/665,350
;  PRIOR FILING DATE: 2000-09-18
;  PRIOR APPLICATION NUMBER: PCT/US00/04414
;  PRIOR FILING DATE: 2000-02-22
;  PRIOR APPLICATION NUMBER: US 60/143,048
;  PRIOR FILING DATE: 1999-07-07
;  PRIOR APPLICATION NUMBER: US 60/145,698
;  PRIOR FILING DATE: 1999-07-26
;  PRIOR APPLICATION NUMBER: US 60/146,222
;  PRIOR FILING DATE: 1999-07-28
;  PRIOR APPLICATION NUMBER: PCT/US99/20594
;  PRIOR FILING DATE: 1999-09-08
;  PRIOR APPLICATION NUMBER: PCT/US99/20944
;  PRIOR FILING DATE: 1999-09-13
;  PRIOR APPLICATION NUMBER: PCT/US99/21090
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/21547
;  PRIOR FILING DATE: 1999-09-15
;  PRIOR APPLICATION NUMBER: PCT/US99/23089
;  PRIOR FILING DATE: 1999-10-05
;  PRIOR APPLICATION NUMBER: PCT/US99/28214
;  PRIOR FILING DATE: 1999-11-29
;  PRIOR APPLICATION NUMBER: PCT/US99/28313
;  PRIOR FILING DATE: 1999-11-30
;  PRIOR APPLICATION NUMBER: PCT/US99/28564
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/28565
;  PRIOR FILING DATE: 1999-12-02
;  PRIOR APPLICATION NUMBER: PCT/US99/30095
;  PRIOR FILING DATE: 1999-12-16
;  PRIOR APPLICATION NUMBER: PCT/US99/30911
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US99/30999
;  PRIOR FILING DATE: 1999-12-20
;  PRIOR APPLICATION NUMBER: PCT/US00/00219
;  PRIOR FILING DATE: 2000-01-05
;  NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 64
;    LENGTH: 312
;    TYPE: PRT
;    ORGANISM: Homo Sapien
US-09-904-011-64

  Query Match             83.3%;  Score 230;  DB 11;  Length 312;
  Best Local Similarity   100.0%;  Pred. No. 6.1e-217;
  Matches  230;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy         97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy        157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy        217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSEN 288


Search completed: December  9, 2003, 17:34:16
Job time : 26.4843 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:21:03 ; Search time 13.4634 Seconds
(without alignments)
1971.458 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 276
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 283308 seqs, 96168682 residues

Word size : 50

Total number of hits satisfying chosen parameters: 0

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : PIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description

No matches found

Search completed: December 9, 2003, 17:25:56
Job time : 13.4634 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:14:27 ; Search time 9.61672 Seconds
(without alignments)
1349.666 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 276
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 127863 seqs, 47026705 residues

Word size : 50

Total number of hits satisfying chosen parameters: 1

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : SwissProt_41:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	240	87.0	298	1	JAM2_HUMAN	P57087 homo sapien

ALIGNMENTS

RESULT 1
JAM2_HUMAN
ID JAM2_HUMAN STANDARD; PRT; 298 AA.
AC P57087;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 15-SEP-2003 (Rel. 42, Last annotation update)
DE Junctional adhesion molecule 2 precursor (Vascular endothelial
DE junction-associated molecule) (VE-JAM).
GN JAM2 OR VEJAM OR C21ORF43.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Vascular endothelial cells;
RX MEDLINE=20317114; PubMed=10779521;
RA Palmeri D., van Zante A., Huang C.C., Hemmerich S., Rosen S.D.;
RT "Vascular endothelial junction-associated molecule, a novel member of
RT the immunoglobulin superfamily, is localized to intercellular
RT boundaries of endothelial cells.";
RL J. Biol. Chem. 275:19139-19145(2000).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Placenta;
RX MEDLINE=20507930; PubMed=10945976;
RA Cunningham S.A., Arrate M.P., Rodriguez J.M., Bjercke R.J.,
RA Vanderslice P., Morris A.P., Brock T.A.;
RT "A novel protein with homology to the junctional adhesion molecule:
RT Characterization of leukocyte interactions.";
RL J. Biol. Chem. 275:34750-34756(2000).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=Lung;
RX MEDLINE=22388257; PubMed=12477932;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length
RT human and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC -!- FUNCTION: MAY PLAY A ROLE IN THE PROCESSES OF LYMPHOCYTE HOMING TO
CC SECONDARY LYMPHOID ORGANS.
CC -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
CC -!- TISSUE SPECIFICITY: PROMINENTLY EXPRESSED ON HIGH ENDOTHELIAL
CC VENULES BUT IS ALSO PRESENT ON THE ENDOTHELIA OF OTHER VESSELS.
CC LOCALIZED TO THE INTERCELLULAR BOUNDARIES OF HIGH ENDOTHELIAL
CC CELLS.
CC -!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
CC -!- SIMILARITY: Contains 1 immunoglobulin-like V-type domain.
CC -!- SIMILARITY: Contains 1 immunoglobulin-like C2-type domain.
CC -!- DATABASE: NAME=PROW; NOTE=PROW 2:1-3(2001);
CC WWW="http://www.ncbi.nlm.nih.gov/prow/guide/1652492186_g.htm".
CC ---

CC ---
DR EMBL; AF255910; AAF81223.1; -.
DR EMBL; AY016009; AAG49022.1; -.
DR EMBL; BC017779; AAH17779.1; -.
DR Genew; HGNC:14686; JAM2.
DR MIM; 606870; -.
DR GO; GO:0005887; C:integral to plasma membrane; NAS.
DR GO; GO:0016337; P:cell-cell adhesion; NAS.
DR InterPro; IPR007110; Ig-like.
DR InterPro; IPR003598; Ig_c2.
DR InterPro; IPR003006; Ig_MHC.
DR Pfam; PF00047; ig; 2.
DR SMART; SM00408; IGc2; 1.
DR PROSITE; PS50835; IG_LIKE; 2.
KW Immunoglobulin domain; Glycoprotein; Transmembrane; Signal.

FT SIGNAL	1	20	POTENTIAL.
FT CHAIN	21	298	JUNCTIONAL ADHESION MOLECULE 2.
FT DOMAIN	21	238	EXTRACELLULAR (POTENTIAL).
FT TRANSMEM	239	259	POTENTIAL.
FT DOMAIN	260	298	CYTOPLASMIC (POTENTIAL).
FT DOMAIN	32	127	IG-LIKE V-TYPE.
FT DOMAIN	134	238	IG-LIKE C2-TYPE.
FT DISULFID	50	109	POTENTIAL.
FT DISULFID	155	214	POTENTIAL.

```
FT   CARBOHYD     98     98       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    187    187       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    236    236       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   298 AA;  33207 MW;  CA78E518E22DCAEE CRC64;

  Query Match             87.0%;  Score 240;  DB 1;  Length 298;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-232;
  Matches  240;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          37 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 96
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          59 SRLEWKKLGRSVSFVYYQQTLQGDFKNRAEMIDFNIRIKNVTRSDAGKYRCEVSAPSEQG 118

Qy          97 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 156
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         119 QNLEEDTVTLEVLVAPAVPSCEVPSSALSGTVVELRCQDKEGNPAPEYTWFKDGIRLLEN 178

Qy         157 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 216
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         179 PRLGSQSTNSSYTMNTKTGTLQFNTVSKLDTGEYSCEARNSVGYRRCPGKRMQVDDLNIS 238

Qy         217 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 276
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         239 GIIAAVVVVALVISVCGLGVCYAQRKGYFSKETSFQKSNSSSKATTMSENDFKHTKSFII 298


Search completed: December  9, 2003, 17:24:01
Job time : 9.61672 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 9, 2003, 17:20:17 ; Search time 29.8118 Seconds
(without alignments)
2389.068 Million cell updates/sec

Title: US-09-852-797-76_COPY_23_298
Perfect score: 276
Sequence: 1 YHKAYGFSAPKDQQVVTAVX.....SSKATTMSENDFKHTKSFII 276

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 830525 seqs, 258052604 residues

Word size : 50

Total number of hits satisfying chosen parameters: 0

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : SPTREMBL_23:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description

No matches found

Search completed: December 9, 2003, 17:25:15
Job time : 29.8118 secs